Support to instant specification.	Language
Supplies	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim Lanonage	99-9-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-

Cloim I on ming	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Oganiji rangnago	Reference	Language	Reference	Language
3. A method of controlling a receiver	Column 8 lines 20-27.	The signal processor apparatus also has a controller device which includes	Page 33 lines 7-20.	Signal processor, 26, has a controller device which includes programmable RAM
station including the		programable random access memory	·	controller, 20, ROM, 21, that may contain
		may contain a unique digital code capable		unique digital code information capable of identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
		apparatus uniquely, an automatic dialing device 24, and a telephone unit. 22. The		uniquely; an automatic dialing device 24; and a telephone unit 22 Controller 20 has
		controller, 20, governs the operation of all		capacity for controlling the operation of all
detecting one of a	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
presence and		through separate paths to three separate detector devices.	35 line 1.	through separate paths to three separate
an absence of a	Column 8 line 68 to	Buffer/comparator, 8, and monitor or	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track
broadcast signal	column 9 line 4.	processor, 12, each have the capacity to	-	of elapsed time, and after determining in a
transmitted from a first		inform controller, 20, when signals that		predetermined fashion that a particular
remote station;		they look for in predetermined fashions,		predetermined period of time has elapsed from
		to appear		the input of wireless channel 9 to decoder, 30,
				processor, 391, to cause all apparatus of
				decoder, 30, cease receiving SPAM message
				information and delete all information
-				received on said wireless channel 9 and causes
				oscillator, 6, to cause the selection of the next
		-		channel in the predetermined television
	Column 6 lines 23 30	A citation of an analysis of	D 20 1: 4 15	Channel Selection pattern: Wireless channel 13.
	COMMINI O MINES 23-30.	A signal processor apparatus for simultaneous use with a cablecast imult that	rage 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
·		conveys both television and radio		for simultaneous use with a cablecast input
		programing and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the		programming and a broadcast television input.
		input signals are the entire range of		The inputted information is the entire range
		frequencies or channels transmitted on the	•	of frequencies or channels transmitted on the
		cable and the entire range of <b>broadcast</b>		cable and the entire range of broadcast
		television antenna of conventional design		television transmissions available to a local
selecting a cablecast	Column 6 lines 30-41.	The cable transmission is input	Page 29 lines 15-26.	The cable transmission is inputted
signal for reception	•	simultaneously to switch 1 and mixer 2.	•	simultaneously to switch, 1, and nuxer, 2.
		The broadcast transmission is input to		The broadcast transmission is inputted to
		all controlled by local oscillator and switch		switch, 1. Switch, 1, and muxers, 2 and 3, are all controlled by local oscillator and switch
	_	control 6. The oscillator, 6, is controlled to		control, 6. The oscillator, 6, is controlled to
				SWIT 280, Appendix A, Page 1 of 183

upport to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Oloima I mich	Ciaim Language

		T						
	provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern; wireless channel 5	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control	processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes	channel in the predetermined television channel in the predetermined television channel selection pattern: wireless channel 13. In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local	cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless
	·	Page 251 lines 3-8.	Page 253 lines 10-11.	Page 253 lines 19-22.	Page 258 lines 10-19.		Page 248 line 35 to page 249 line 5.	
*	frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		The controller, 20, inputs the local oscillator, 6, a sequential pattern to select	switch, 1, and mixers, 2 and 3.
	,	Column 8 lines 62-65.			Column 8 line 68 to column 9 line 4.		Column 8 lines 27-29.	
		based on said step of detecting,						

5	Support to parent	Support to parent application filed November 3, 1981.	ans	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
_				channel 9, wireless channel 13, then to repeat
				said pattern.
said cablecast signal being transmitted from	Column 6 lines 23-30.	A signal processor apparatus for simultaneous use with a cablecast input that	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured
a second remote station;		conveys both television and radio		for simultaneous use with a cablecast input
and		programing and a broadcast television	•	that conveys both television and radio
		input is shown in Figure 1. As shown, the input signals are the entire range of		programming and a broadcast television input. The inputfed information is the entire range.
		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
		cable and the entire range of broadcast		cable and the entire range of broadcast
		television transmissions available to a local television antenna of conventional design		television transmissions available to a local
receiving said cablecast	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
signal based on said		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
step of selecting.		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of interest at a fixed frequency to
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
	-			a predetermined fashion that a particular
				predetermined period of time has elapsed from
				controller 20 causes oscillator 6 to cause
				the selection of the next channel in the
				predetermined television channel selection
				parion: wholes challed 10.
		-	Page 265 line 27 to	Said radio-detection-complete information
-			Page 266 line 21.	causes controller, 20, to cause oscillator, 6,
				to cause the selection of the next frequency in
	,	-		the predetermined radio frequency selection nattern: 99 0 MHz Automatically oscillator
				6, causes mixer, 2, to select said frequency
				and input it, at a fixed frequency, to decoder,
			٠	40 After determining, in a

Support to instant specification.	Language	 the input of said 99.0 MHz frequency to	decoder, 40, controller, 20, causes	oscillator, 6, to cause the selection of the next	frequency in the predetermined radio	frequency selection pattern: 100.0 MHz.
Sup	Reference					
Support to parent application filed November 3, 1981.	Reference					
Claim I anguage	Orania Cangues					

4. A method of	Column 8 lines 20-27	The signal processor apparatus also has a	Page 33 lines 7-20	Signal processor 26 has a controller davice
controlling a receiver		controller device which includes		which includes programmable RAM
station including the		programable random access memory		controller, 20; ROM, 21, that may contain
steps of:		controller 20, read only memory 21 that		unique digital code information capable of
-		may contain a unique digital code capable		identifying signal processor, 26, and the
		of identifying the signal processing		subscriber station of said processor, 26,
		apparatus uniquely, an automatic dialing		uniquely; an automatic dialing device 24; and
		device 24, and a telephone unit, 22. The		a telephone unit, 22 Controller, 20, has
		controller, 20, governs the operation of all		capacity for controlling the operation of all
		operating elements of the apparatus.		elements of the signal processor
detecting one of a	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred
presence and		through separate paths to three separate	35 line 1.	through separate paths to three separate
		detector devices.		detector devices.
an absence of a	Column 8 line 68 to	Buffer/comparator, 8, and monitor or	Page 258 lines 10-19.	Controller, 20, has capacity for keeping track
cablecast signal	column 9 line 4.	processor, 12, each have the capacity to		of elapsed time, and after determining in a
transmitted from a first		inform controller, 20, when signals that		predetermined fashion that a particular
remote station;		they look for in predetermined fashions,		predetermined period of time has elapsed from
		set by and changeable by controller, 20, fail		the input of wireless channel 9 to decoder, 30,
		to appear.		controller, 20, automatically causes control
				processor, 39J, to cause all apparatus of
				decoder, 30, cease receiving SPAM message
				information and delete all information
٠.		-		received on said wireless channel 9 and causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
	;			channel selection pattern: wireless channel 13.
	Column 6 lines 23-30.	A signal processor apparatus for	Page 29 lines 4-15.	Fig. 2 shows one embodiment of a signal
		simultaneous use with a cablecast input		processor. Said processor, 26, is configured
		that conveys both television and radio		for simultaneous use with a cablecast input
		programing and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the		programming and a broadcast television input.
		input signals are the entire range of		The inputted information is the entire range
		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
	-	cable and the entire range of broadcast		cable and the entire range of broadcast

Support to instant specification.  Language	television transmissions available to a local television antenna of conventional design.  The cable transmission is inputted simultaneously to switch, 1, and mixer, 2.  The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.
Sup	Page 29 lines 15-26.	Page 251 lines 3-8.
application filed November 3, 1981.  Language	television transmissions available to a local television antenna of conventional design.  The cable transmission is input simultaneously to switch 1 and mixer 2.  The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.
Support to parent appli Reference	Column 6 lines 30-41.	Column 8 lines 62-65.
Claim Language	selecting a broadcast signal for reception	based on said step of detecting,

## received on said wireless channel 9 and causes | SWIT 280, Appendix A, Page 5 of 183

predetermined period of time has elapsed from

of elapsed time, and after determining in a

predetermined fashion that a particular

oscillator, 6, to cause the selection of the next

information causes controller, 20, to cause

Receiving said detection-complete

Page 253 lines 19-22.

detection-complete information to controller,

Finally, controller, 39J, transmits particular

Page 253 lines 10-11.

channel selection pattern: wireless channel 5. Controller, 20, has capacity for keeping track

Page 258 lines 10-19.

channel in the predetermined television

the input of wireless channel 9 to decoder, 30,

they ... look for in predetermined fashions, set by and changeable by controller, 20, fail

to appear.

processor, 12, each have the capacity to inform controller, 20, when signals that

Buffer/comparator, 8, and monitor or

Column 8 line 68 to column 9 line 4.

controller, 20, automatically causes control

processor, 39J, to cause all apparatus of

decoder, 30, cease receiving SPAM message

information and delete all information

Oloim I anono	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Ciaiiii Laiiguage	Reference	Language	Reference	Language
		٠		
				oscillator, 6, to cause the selection of the next
			•	channel in the predetermined television
				channel selection pattern: Wireless channel 15.
	Column 4 lines 5-6.	I hese techniques employ signals embedded in programs.	rage 13 lines 25-26.	I he present invention employs signals embedded in programming
said broadcast signal	Column 6 lines 23-30	A signal processor annaratis for	Page 29 lines 4-15	Fig. 2 shows one embodiment of a signal
heing transmitted from		simultaneous use with a cablecast innut that		respector Cold processor 36 is a second
being named moun		Similaricous use with a capiecast mput that		piecessoi. Said piecessoi, 20, 1s conniguied
a second remote station;		conveys boun television and radio		ior simulaneous use with a capiecast input
and		programing and a broadcast television		that conveys both television and radio
		input is shown in Figure 1. As shown, the	-	programming and a broadcast television input.
		input signals are the entire range of		The inputted information is the entire range
r		frequencies or channels transmitted on the		of frequencies or channels transmitted on the
		cable and the entire range of broadcast	٠	cable and the entire range of broadcast
		television transmissions available to a local		television transmissions available to a local
		television antenna of conventional design.		television antenna of conventional design.
receiving said broadcast	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
signal based on said		will allow each signal decoder, 30 and 40,	page 238 line 19.	controller, 20, to cause oscillator, 6, to cause
step of selecting.		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
		-		pattern: wireless channel 9. Automatically
		-		oscillator, 6, causes mixer, 3, to select the
			-	frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
				the input of wireless channel 9 to decoder, 30,
				controller, 20, causes oscillator, 6, to cause
	•			the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 13.
			Page 265 line 27 to	Said radio-detection-complete information
			1 age 200 mmc 21.	to cause the selection of the next frequency in
				the predetermined radio frequency selection
				nattern: 99.0 MHz. Automatically oscillator.
		-		6 causes mixer 2 to select said frequency
				and input it at a fixed frequency to decoder
				40

Said detection-complete information causes

Page 257 line 24 to

fixed frequency to a TV signal decoder, 30.

The local oscillator, being thus sequenced.

Column 9 lines 53-55.

a receiver.

mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a

TV signal decoder, 30.

mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a

cablecast input and passes transmissions to

1, acts to select the broadcast input or the cablecast input and passes transmissions to

Support to instant specification.  Language	After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	The cable transmission is inputted simultaneously to switch, 1, and mixer, 2. The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The cable transmission is inputted simultaneously to switch, 1, and mixer, 2. The broadcast transmission is inputted to switch, 1. Switch, 1, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1,
Sup		Page 29 lines 15-26.	Page 29 lines 15-26.
Support to parent application filed November 3, 1981.  Reference Language		The cable transmission is input simultaneously to switch 1 and mixer 2.  The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The cable transmission is input simultaneously to switch 1 and mixer 2. The broadcast transmission is input to switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch,
Support to parent Reference		Column 6 lines 30-41.	Column 6 lines 30-41.
Claim Language		5. The method of claim 3, further comprising the steps of: controlling a switch to select a cablecast signal input; and	communicating a signal from said selected cablecast signal input to

Language	controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping	rack of etapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40	After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.
Reference	page 258 line 19.		Page 265 line 27 to Page 266 line 21.	
Language	will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.			j
Reference	_			
0				

6. The method of	The method of Column 6 lines 30-41.	The cable transmission is input	Page 29 lines 15-26.	The cable transmission is inputted
claim 4, further		simultaneously to switch 1 and mixer 2.	· -	simultaneously to switch, 1, and mixer, 2.
comprising the steps of:		The broadcast transmission is input to		The broadcast transmission is inputted to
controlling a switch		switch 1. Switch 1 and mixers 2 and 3 are		switch, 1. Switch, 1, and mixers, 2 and 3, are
to select a broadcast		all controlled by local oscillator and switch		all controlled by local oscillator and switch
signal input; and		control 6. The oscillator, 6, is controlled to		control, 6. The oscillator, 6, is controlled to

Support to instant specification.	Language
Suppo	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Claim Language

		L - 27:		1.74
		provide a number of discrete specified		provide a number of discrete specified
		frequencies for the particular radio and		frequencies for the particular radio and
		television channels required. The switch,		television channels required. The switch, 1,
		1, acts to select the broadcast input or the		acts to select the broadcast input or the
		cablecast input and passes transmissions to		cablecast input and passes transmissions to
		mixer 3 which, with the controlled		mixer, 3, which, with the controlled oscillator,
		oscillator, 6, acts to select a television		6, acts to select a television frequency of
	,	frequency of interest that is passed at a		interest that is passed at a fixed frequency to a
		fixed frequency to a TV signal decoder, 30.		TV signal decoder, 30.
communicating a	Column 6 lines 30-41.	The cable transmission is input	Page 29 lines 15-26.	The cable transmission is inputted
signal from said		simultaneously to switch 1 and mixer 2.		simultaneously to switch, 1, and mixer, 2.
selected broadcast		The broadcast transmission is input to		The broadcast transmission is inputted to
signal input to		switch 1. Switch 1 and mixers 2 and 3 are		switch, 1. Switch, 1, and mixers, 2 and 3, are
		all controlled by local oscillator and switch		all controlled by local oscillator and switch
		control 6. The oscillator, 6, is controlled to		control, 6. The oscillator, 6, is controlled to
		provide a number of discrete specified		provide a number of discrete specified
		frequencies for the particular radio and		frequencies for the particular radio and
		television channels required. The switch,		television channels required. The switch, 1,
		1, acts to select the broadcast input or the		acts to select the broadcast input or the
		cablecast input and passes transmissions to		cablecast input and passes transmissions to
		mixer 3 which, with the controlled	,	mixer, 3, which, with the controlled oscillator,
		oscillator, 6, acts to select a television		6, acts to select a television frequency of
		frequency of interest that is passed at a		interest that is passed at a fixed frequency to a
		fixed frequency to a TV signal decoder, 30.		TV signal decoder, 30.
a receiver.	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
		to receive a particular frequency at a		the selection of the next channel in the
-		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
		٦		frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
		-		the input of wireless channel 9 to decoder, 30,
•				controller, 20, causes oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 13.

_	_		
Support to instant specification.	Language		Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40
Supp	Reference		Page 265 line 27 to Page 266 line 21.
pplication filed November 3, 1981.	Language		
Support to parent appli	Reference	-	
Cloum I angua	Ciaim Language		

After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, ... causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.

Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 5, wireless channel 5, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to SWIT 280, Appendix A, Page 10 of 183
Page 248 line 17 to page 249 line 5.	Page 257 line 24 to page 258 line 19.
The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	
The method of column 9 lines 47-52. r claim 4, group group g of: mrning a r to control a select one of a t and a input;	
7. The method of claim 3 or claim 4, further having one step from the group consisting of: programming a processor to control a switch to select one of a broadcast and a cablecast input;	

port to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Ciaim Lamburg

_			<del></del>	
Language	decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	switch, I. Switch, I, and mixers, 2 and 3, are all controlled by local oscillator and switch control, 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, I, acts to select the broadcast input or the cablecast input and passes transmissions to mixer, 3, which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 9, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection
201010101	St. St. See St. Or. See d.	1 age 27 illes 10-20.	Page 248 line 17 to page 249 line 5.	Page 257 line 24 to page 258 line 19.
99	T. S.	switch 1. Switch 1 and mixers 2 and 3 are all controlled by local oscillator and switch control 6. The oscillator, 6, is controlled to provide a number of discrete specified frequencies for the particular radio and television channels required. The switch, 1, acts to select the broadcast input or the cablecast input and passes transmissions to mixer 3 which, with the controlled oscillator, 6, acts to select a television frequency of interest that is passed at a fixed frequency to a TV signal decoder, 30.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	
	Column 6 lines 21 41		Column 9 lines 47-52.	
			programming said receiver station with a plurality of transmission standards for receiving signals	

oort to instant specification.	Language	
IdnS	Reference	
application filed November 3, 1981.	Language	
 Support to parent a	Reference	
Cloim I min	Ciaim Language	

Claim Language	Support to parent	Suppoit to patent application incu inovenibel 3, 1301.	1	Support to instant specification.	Т
0	Reference	Language	Reference	Language	
					ſ
			-	pattern: wireless channel 9. Automatically	
				oscillator, 6, causes mixer, 3, to select the	
				frequency of channel 9 and input said	
				frequency of interest, at a fixed frequency, to	_
				decoder, 30	
				Controller, 20, has capacity for	
			*	keeping track of elapsed time, and after	
				determining in a predetermined fashion that a	
				particular predetermined period of time has	_
				elapsed from the input of wireless channel 9 to	_
				decoder, 30, controller, 20, causes	_
				oscillator, 6, to cause the selection of the next	
				channel in the predetermined television	_
from at least one remote	Column 6 lines 23-30	A cional processor annaratis for	Page 20 lines 4.15	Fig. 2 shows one embodiment of a signal	┰╴
solitice.		simultaneous use with a cablecast input that	1 460 27 111103 1 17.	processor Said processor 26 is configured	
•		conveys both television and radio		for eimiltaneous use with a cablecast input	
		programing and a broadcast television		that conveys both television and radio	
		programming and a productive television		mar conveys boil television and radio	
		input is snown in rigure 1. As snown, the		programming and a proadcast television input.	
		input signals are the entire range of		The inputted information is the entire range	
		frequencies or channels transmitted on the		of frequencies or channels transmitted on the	
		cable and the entire range of broadcast		cable and the entire range of broadcast	_
		television transmissions available to a local		television transmissions available to a local	
		television antenna of conventional design.		television antenna of conventional design.	
programming a	Column 8 lines 20-27.	The signal processor apparatus also has a	Page 33 lines 7-20.	Signal processor, 26, has a controller device	
processor to one of		controller device which includes		which includes programmable RAM	
assemble,		programable random access memory		controller, 20; ROM, 21, that may contain	
		controller 20, read only memory 21 that		unique digital code information capable of	_
		may contain a unique digital code capable		identifying signal processor, 26, and the	_
		of identifying the signal processing	•	subscriber station of said processor, 26,	
		apparatus uniquely, an automatic dialing		uniquely; an automatic dialing device 24; and	_
•		device 24, and a telephone unit, 22. The	•	a telephone unit, 22 Controller, 20, has	
		controller, 20, governs the operation of all		capacity for controlling the operation of all	
		operating elements of the apparatus.		elements of the signal processor	
	Column 9 line 68 to	The controller, 20, instructs	Page 32 lines 20-21.	Buffer/comparator, 14, operates under control	
. —	column 10 line 2.	butter/comparator, 14, what signals to		ot controller, 20,	
		assemble sional strings	Page 223 lines 22.33	Said match causes controller 20 to execute	
		assemble orbital outlibs.	+ ago tel	soid instructions Thater control of noid fine	
-				said instructions. Onder control of said first set controller 20 initiates assembly of said	
	•			first motor recoved by collecting and places of	
				mentional record by selecting and placing at particular record locations at	
					٦:
		-		101 J - C1	c

	Support to parent appl	application filed November 3, 1981.	Supp	Support to instant specification.
Ciaitii Laiiguage	Reference		Reference	Language
-				
				buffer/comparator, 14, particular record format information, then program unit information from a particular meter-monitor field of said 1st meter & monitor information (#4), origin of transmission information from a second field, date and time of transmission information from a third field, decryption key information from the decryption mark of said 1st meter & monitor information (#4), and finally date and time of processing information from clock, 18.
			Page 224 lines 12-18.	When said second set is completed, controller, 20, executes said third specified set which causes controller, 20, to cause buffer/comparator, 14, to transfer said second meter record to recorder, 16, in a predetermined fashion then discard all information of said record from its memory and to cause recorder, 16, to process and record said transferred meter record in its preprogrammed fashion.
identify, and	Column 9 lines 65-68.	[Controller, 20] instructs processor or monitor, 12, how to identify what signals to pass externally and where to pass them and what signals to transfer to buffer/comparator, 14.	Page 438 lines 13-15. Page 59 lines 31-33.	causing the apparatus of decoder, 30, to commence identifying and processing the individual SPAM messages embedded in said transmission.  The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
respond to	Column 8 lines 40-44.	[Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals to pass to buffer/comparator, 14.	Page 33 lines 18-20.  Page 149 lines 8-15.	Controller, 20, has capacity for controlling the operation of all elements of the signal processor and  Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decryption mark information of key J that identifies J as the decryption key.  Receiving said instruction and information causes controller, 12, to execute particular preprogrammed transfer- and-meter

upport to instant specification.	Language
oddnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Olom I minlo	Ciaim Language

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Language	instructions	Automatically, controller, 12, executes preprogrammed transfer-to-205-@12 instructions; activates the output port that outputs to SPAM- controller, 205C; then commences transferring information of said decrypted information of the second message under control of said transfer-and-meter instructions commencing with the first of said H bits and transferring information,	causes controller, 12, to cease transferring information, under control of said transfer-and-meter instructions, to deactivate all output ports, and to commence executing the meter instructions of said transfer-and-meter instructions. Said meter instructions cause controller, 12, to transfer to buffer/comparator, 14, particular header identification information that identifies controller, 12, as the source of said transfer the information recorded at said SPAM-meter memory then the information recorded at said decryption-mark- @12 register memory, which information is the decryption mark of key J. (Hereinafter, said meter information generated by the second combining synch command in example #2 is called the "2nd meter information (#2).")	Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to
Reference		For example, page 150 lines 29-35.	For example, page 152 line 19 to page 153 line 1.	Page 14 line 35 to page 15 line 2.	Page 257 line 24 to page 258 line 19.
Language				Examples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.
Reference				Column 3 lines 6-8.	Column 9 lines 53-57.
Ciaim Language				digital signals	detected in

Support to instant specification.	Language	decoder, 30	Controller, 20, has capacity for keeping	track of elapsed time, and after determining in	a predetermined fashion that a particular	predetermined period of time has elapsed from	the input of wireless channel 9 to decoder, 30,	controller, 20, causes oscillator, 6, to cause	the selection of the next channel in the	predetermined television channel selection	pattern: wireless channel 13.	Said radio-detection-complete information	causes controller, 20, to cause oscillator, 6,	to cause the selection of the next frequency in	the predetermined radio frequency selection	pattern: 99.0 MHz. Automatically oscillator,	6, causes mixer, 2, to select said frequency	and input it, at a fixed frequency, to decoder,	40	After determining, in a predetermined	tashion, that a particular predetermined period	of time has elapsed from the input of said 99.0	MHz frequency to decoder, 40, controller, 20,	causes oscillator, 6, to cause the selection	of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz	Example #5 begins with the embedding and	uansimumis, at the remote station that originates the "Wall Street Week" broadcast	of the first message of the "Wall Street Week"	program which is the message of the first	combining synch command.	Receiving soid embedded information conses	the binary SPAM information of said first	command, with error correcting information,	to be detected at detector, 34;
Supp	Reference		-			-						Page 265 line 27 to	Page 266 line 21.	1				*			-					Page 250 lines 13-17.	-				251 lines 8-11			
application filed November 3, 1981.	Language								c	·																This will define the timing of the	34. 37. and 38 in FIG. 2A. and 43 in FIG.	2B.		,				
Support to parent appl	Reference															-																		
Communication of the second	Ciainn Language												٠									·	-											-

... said information to radio decoder, 42, which decodes the the embedded signal information of said command and transmits

Page 263 lines 19-24.

ort to instant specification.	Language	:
ddnS	Reference	
application filed November 3, 1981.	Language	
Support to parent	Reference	
1 -: -!	Ciaim Language	

said signal information to digital detector, 43, which detects the binary information with error correcting bit information of said command and transfers said binary and bit information to controller, 44.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio processorming and a broadcast television input	The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	Signal processor, 26, has a controller device which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor 76.	uniquely; an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor Controller, 20, has capacity for controlling the operation of all elements of the signal processor and	Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decrypted-message instruction and particular decryption mark information of key J that identifies J as the decryption key.  Receiving said instruction and information causes controller, 12, to execute particular preprogrammed transfer- and-meter
	Page 37 lines 26-28	Page 29 lines 4-15.		Page 33 lines 7-20.	Page 33 lines 18-20.	Page 149 lines 8-15.
		A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television in Figure 1 As shown the	input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing	apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus. [Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals	to pass to buffer/comparator, 14.
		Column 6 lines 23-30.	·	Column 8 lines 20-27.	Column 8 lines 40-44.	
		one of a broadcast and a cablecast transmission;	-	programming a processor to communicate control signals		

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Some I will	Support to paren	Support to parent application filed November 3, 1981.	IdnS	Support to instant specification
Ciaim Language	Reference	Language	Reference	Language
_	-			
				instructions
			For example, page 150 lines 29-35.	Automatically, controller, 12, executes preprogrammed transfer-to-205-@12
				instructions; activates the output port that outputs to SPAM- controller, 205C: then
				commences transferring information of said
				under control of said transfer-and-meter
				instructions commencing with the first of said H bits and transferring information,
			For example, page 152	causes controller, 12, to cease
			line 19 to page 153 line	transferring information, under control of said
			<u>.</u>	ransfer-and-meter instructions, to deactivate all output ports, and to commence executing
				the meter instructions of said
3	•			instructions cause controller, 12, to transfer
				to buffer/comparator, 14, particular header
*	•		-	identification information that identifies
·				the information recorded at said SPAM-meter
				memory then the information recorded at said
				decryption-mark-@12 register memory,
				which information is the decryption mark of
				generated by the second combining synch
				command in example #2 is called the "2nd
	Column & lines 58-60	Control circusts can be passed to the	Dogs 200 lines 25 21	meter information (#2).")
		apparatus by means of the programing	1 age 270 miles 20-31.	causes the oscillator, 0, then to cause switch 1 and mixer 3 to select information
	-	transmissions input at switch, 1, and mixer,		of a particular master cable control channel
		2.		(that may or may not be cable channel 13)
				from the multi-channel cable system
				transmission inputted to signal processor, 200,
				and to input said selected to 1 V signal decoder, 30;
			Page 201 lines 21-24	In the factions decomined about
				transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to

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Support to instant specification.	Agangama	which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch. 259	Signal processor, 26, has a controller device which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that
Sup			Page 59 lines 29-31.	Page 59 lines 29-31.	For example, page 531 lines 17-22.	Page 33 lines 7-20.	Page 59 lines 29-31.	For example, page 531 lines 17-22.
Support to parent application filed November 3, 1981. Reference	Gardan			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.		The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	
Support to parent Reference				Column 8 lines 62-65.		Column 8 lines 20-27.	Column 8 lines 62-65.	
Claim Language			·	to at least one controllable device;	-	processor to respond	to an instruct-to-react signal; and	

exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259.

Signal processor, 26, has a controller device

SWIT 280, Appendix A, Page 18 of 183

Page 33 lines 7-20.

The signal processor apparatus also has a

Column 8 lines 20-27.

programming said

pport to instant specification.	Language
InS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anouage	Agangian immi

which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely: an automatic dialing device 24, and	a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor	Controller, 20, has capacity for controlling the operation of all elements of the signal processor	The first stage of said sequence involves transferring audit information to a particular first host computer at a first remote station.	causes controller, 20, to cause recorder, 16, to transmit all recorded meter audit records and particular other audit information to telephone connection, 22, which causes said	connection, 22, to transmit said records and information to said first commiter
		Page 33 lines 18-20.	Page 273 lines 4-6.	Page 273 lines 21-25.	
controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing	device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	The controller, 20, also inputs the digital recorder, 16, to direct it to output the information from the memory of the recorder, 16, to telephone connection, 22,	and thence to the collection site at the remote geographical location.		
	0.1 0.1: 47.50	Column 8 lines 46-50.			
receiver station to communicate with a third remote station via telecommunications network.					

In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	
Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.	
processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator,	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	
The method of Column 19 lines 17-23. r claim 4, a processor sone of a code		
8. The method of claim 3 or claim 4, wherein a processor processes one of a code	and datum designating one of a television channel and a television program, said method further having one step of the group consisting of:	

oort to instant specification.	Language
Supl	Reference
pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	Ciaim Language

Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input	the information segment of said message to	the CPU of microcomputer, 205 The	information so invitted is the oforementioned	intermental so inputted is the aforementalized	determine-whether- to-select instructions that	contain said particular specific-WSW	information and said enable-WSW-on-	0.013		Said instructions contain one instance, and	program-unit-of-interest information that is	preprogrammed at said microcomputer, 205,	contains a second instance of specific-WSW	information, which second instance reflects	the wish of the subscriber of said station to	view (or record) said "Wall Street Week"	Production of mission production in the members	Automatically microcomputer 205 compared	sold one instance to gold	said one instance to said	program-unit-of-interest information and	determines a match with said second	instance.	Determining a match causes	microcomputer, 205, automatically to input	said please-fully-enable-WSW	-on-CC13-at-particular- 8:30 information to	the controller, 20.	to receive the transmission of cable	instructions causes controller 20 to switch	power on to monitor, 202M, and commence	transferring the television output transmission	of microcomputer, 205, to said monitor,	202M; Automatically, controller, 20, inputs	a particular instruction to decoder, 145, via	said communications link, that causes	decoder, 145, to switch power on to monitor,	202M, and to tune monitor, 202M, in a	predetermined fashion.		In so doing, controller, 20, causes monitor,
Page 436 line 9 to	page 437 line 3.																													Page 439 lines 14-15.	Page 445 line 24 to	page 446 line 1.									Done 444 lines 17 21	rage 440 lines 17-21.
																	-														and also microcomputer, 205, may	instruct switch, 216, to turn TV set, 202, on	and tuner, 215, to tune appropriately to	"Wall Street Week."								_
								,															*						. •		Column 19 lines 27-29.											_
										٠																					controlling a tuner to	tune a receiver to	receive said one of a	television channel and a	television program	designated by said one	of a code and datum;					_

## SWIT 280, Appendix A, Page 20 of 183

port to instant specification.	Language	
Sup	Reference	
application filed November 3, 1981.	Language	
Support to parent	Reference	
Claim Language	99	

Language	audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20  Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	stationcable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor,
Reference	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 line 24 to page 446 line 1.	Page 446 lines 17-21.
Language	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X				and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	
Reference	Column 19 lines 23-25.	·			Column 19 lines 27-29.	
					controlling a selective transfer device to input to	

## SWIT 280, Appendix A, Page 21 of 183

Support to instant specification.	Language
Suppo	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Agung Turne

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Language	audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred, and to transfer said signals to said apparatus.	Microcomputer, 205, evaluates the initial signal word or words which instruct it to the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to	By such bus means, onboard controller, 14A, can cause any on or all of said decoders to commence or cease processing and transmitting SPAM monitor information and can cause any one or all of said decoders to change the location or locations that are searched for SPAM information. Fig. 5 shows that,	
Kelerence		Page 451 lines 6-7.  Page 23 line 35 to page 24 line 4.	Page 37 line 26 to page 38 line 8.	Page 24 lines 5-6. Page 451 lines 7-9.	Page 318 lines 2-7.	
Language		When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205			control information connections between signal processor, 130, and the remote decoders which would permit signal decoder, 130, to alter the methods of operation of said remote decoders. Such control information connections are included in signal processing apparatus and methods.)	
Meterenice		Column 19 lines 45- 49.			Column 17 lines 28-33.	Column 2 line 64-
		a control signal detector at least a portion of said one of a television channel and a television program designated by said one of a code and datum;			controlling a control signal detector to search for at least one control signal in said one of a television channel and a television program designated by said one of a code and datum;	

port to instant specification.	Language	
Sup	Reference	
t application filed November 3, 1981.	Language	
Support to parent	Reference	
Claim I anguage	Camil Language	

Language		instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio		instruction signals embedded in the "Wall Street Week" programming transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from SWIT 280, Appendix A, Page 23 of 183
Reference		Page 445 line 24 to page 446 line 1.	Page 446 lines 17-21.		Page 21 lines 23-24.	Page 451 lines 6-7.	Page 23 line 35 to page 24 line 4.	Page 37 line 26 to page
Language		and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."			instruction signals embedded in the "Wall Street Week" programing transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205.	
Reference	Column 3 line 3 Column 3 lines 6-8 Column 15 lines 59-65 Column 16 line 39 Column 17 line 40 Column 19 lines 14-15	Column 19 lines 27-29.		Column 17 lines 65 - Column 18 line 4	Column 19 lines 43-49.			
Ciamir Language		controlling a selective transfer to			input to a computer control signals detected in said one of a relevision channel and a	television program designated by said one of a code and datum;		

Support to parent application filed No Reference	application filed No	ication filed November 3, 1981. Language	Supp	Support to instant specification.
		Sangare	CONTRACTOR	ranguage
			38 line 8.	the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39,
. *				44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to
			·	franster said signals to said apparatus.  Microcomputer, 205, evaluates the initial
		These signals instruct microcomputer, 205,	Page 24 lines 5-6.	signal wold of wolds wincii iiistiüct it to
computer to respond to at least one control signal in said one of a television channel and a television program designated by said one of a code and datum;	Column 19 lines 42-44.	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.	Page 21 lines 20-24.	Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programming transmission.
	Column 19 lines 46-53.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.	Page 23 line 35 to page 24 line 16.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as
			,	the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs)

instructions that follows said word or words just as the information of a file named FILE EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk

inputs) and run were the command "FILE"

and run the information of a particular set of

Claim I anonage	Support to parent appl	t application filed November 3, 1981.	IdnS	Support to instant specification.	
29 mg	Reference	Language	Reference	Language	
				system. (Hereinafter, such a set of	. —
				instructions that is loaded and run is called a "program instruction set.")	
			Page 44 lines 14-17.	A command is an instance of signal information that is addressed to particular	
				subscriber station apparatus and that causes said apparatus to perform a particular function	_
			. •	or functions. A command is always constituted of at least a	
			Page 26 lines 20-28.	(Hereinafter, an instruction such as	
			•	the above signal of "GRAPHICS ON" that	
				causes subscriber station apparatus to execute	
				a combining operation in synchronization is called a "combining synch command" Said	
				initial signal word or words that preceded the	
				above program instruction set provide another	
				example of a combining synch command in that said word or words conchronized all	
		-		subscriber station computers in commencing	
				loading and running information for a	
	Column 19 line 60 to	At this point, an instruction signal is	Page 25 line 34 to page	particular combining.) At this point, an instruction signal is generated	
	column 20 line 1.	generated in the television studio	26 line 2.	at said program originating studio, embedded	
		transmitted in the programing transmission.		in the programming transmission, and transmitted. Said signal is identified by	
,		This signal is identified by decoder, 203, and transferred via processor 204 to		decoder, 203; transferred to microcomputer,	
		microcomputer, 205.		,,,,,	
			Page 37 line 26 to	In each decoder, the controller, 39, 44, or	
			page 38 line 8.	47, receives detected digital information from	
				the relevant detector or detectors, 34, 37, 38,	
				instance of signal information, controller, 39.	_
				44, or 47, is preprogrammed to process said	
				information automatically. Controller, 39, is	
			_		•

preprogrammed to ... correct errors in retained received information by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means

Claim I anguise	Support to parent	Support to parent application filed November 3, 1981.	ians	Support to instant specification.
Ciaiiii Laiiguage	Reference	Language	Reference	Language
-				
				of input protocol techniques well known in the art, into digital information that subscriber
				Station apparatus can receive and process:
-			-	to identify in a predetermined fashion or
				fashions subscriber station apparatus to which
				said signal information should be transferred;
				and to manster sale signals to sale apparatus.
				Said signal instructs microcomputer, 205, at
				the PC-MicroKey 1300 to overlay the graphic
		This airea in the material consistent	D = 2 0 1: 4 11	information in its graphics card onto the
		to transmit the first overlay to TV set. 202.	rage 20 iiites 4-11.	received composite video information and transmit the combined information to TV
		for as long as it receives the same	,	monitor, 202M. TV monitor, 202M, then
		instruction signal from processor, 204.		displays the image shown in Fig. 1C which is
				the microcomputer generated graphic of the
				Subscriber's own portfolio performance
		The viewer then sees a microcommiter		mission on the studio generated graphic. And
		generated graphic of his own stocks'		incrocomputer, 203, commences
		performance		
controlling a	Column 19 lines 27-29.	and also microcomputer, 205, may	Page 445 line 24 to	instructions causes controller, 20, to switch
television monitor to		instruct switch, 216, to turn TV set, 202, on	page 446 line 1.	power on to monitor, 202M, and commence
display one of video		and tuner, 215, to tune appropriately to		transferring the television output transmission
and audio contained in	o o	"Wall Street Week."		of microcomputer, 205, to said monitor,
channel and a television				202M; Automatically, controller, 20, inputs
program designated by	-			a particular instruction to decoder, 145, via
said one of a code and				decoder 145 to switch nower on to monitor
datum;				202M, and to tune monitor, 202M, in a
				predetermined fashion.
				:
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor,
				audio information of the "Wall Street Week"
				program, to display the video image of said
				information and to emit sound in accordance
				with said audio
controlling a video	Column 19 lines 23-27.	microcomputer, 205, may instruct tuner,	Page 437 lines 1-6.	Determining a match causes microcomputer,
recorder to one of		214, to switch box, 201, to channel X and		205, automatically to input said
record and play one of		may instruct control system, 220, to turn		please-fully-enable-WSW-
viuco allu auulo		Video recorder, 217, on and record "Wall		on-CC13-at-particular- 8:30 information to the

oort to instant specification.	Language
Supplied	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	289

				SQQ
contained in said one of a television channel and a television program designated by said one of a code and datum; and		Street Week,"		controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;
			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its
*			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;
			Page 445 lines 24-27.	instructions causes controller, 20,; to switch power on to video recorder/player, 217,
			Page 446 lines 18-23.	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.
	Column 19 lines 1-4 Column 19 line 45			
selective transfer device to communicate to one of a video recorder and a television monitor said one of a television channel and a television program designated by said one of a code and datum.	Column 19 lines 23-29.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week," and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular-8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus

oort to instant specification.	Language
oddnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Agamgua Tampa

Page 295 lines 6-8.  Page 439 lines 9-15.  Page 445 lines 24-27.  Page 445 lines 18-23.  Page 445 line 24 to page 446 line 1.  Page 445 line 24 to page 445 line 24 to page 446 line 1.							
Page 439 lines 6-8.  Page 445 lines 24-27.  Page 446 lines 18-23.  Page 446 line 18-23.  Page 446 line 1.  Page 446 line 1.  Page 446 line 1.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20, to switch power on to video recorder/player, 217,	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.	instructions causes controller, 20, to switch power on to monitor, 202M, Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M,	and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio
	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 lines 24-27.	Page 446 lines 18-23.	Page 445 line 24 to page 446 line 1.	Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.
			·				·
				÷· ,			

In due course, while scanning sequentially	all channels in the fashion of example #5, the	apparatus of the signal processor, 200,
Page 435 lines 16-18.		
processor or monitor, 12, which reacts,	in a predetermined fashion by passing also	externally to microcomputer, 205, all
Column 19 lines 17-23.		
9. The method of	claim 3 or claim 4,	wherein a processor

port to instant specification.	Language
oddnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	399

Support to instant specification.	Language		All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.	programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13  Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to	the controller, 20.
inS	Reference	ı	Page 267 lines 20-28 from example #5.	·	Page 436 line 9 to page 437 line 3.	
application filed November 3, 1981.	Language		signals that it passes to buffer/ comparator,  14. Analyzing these identifier signals in a predetermined fashion, microcomputer,  205, determines that "Wall Street Week" is being televised on channel X.			
Support to parent appl	Reference					
Claim I anguage	Cianii Languago		processes one of a code and datum designating at least one specific channel of one of a			

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	A9m9

_	_						
Support to instant specification.	Language	to receive the transmission of cable	channel 1.5;  Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;
	Reference	Page 439 lines 14-15.	Page 29 lines 4-7.	Page 445 line 24 to page 446 line 1.	Page 446 lines 17-21.	Page 437 lines 1-6.	Page 439 lines 9-15.
cation filed I	Language		A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	
Support to parent appli	Reference		Column 6 lines 23-26.	Column 19 lines 27-29.		Column 19 lines 23-25.	
Claim Language	2		multichannel cable signal and a broadcast signal, said method further having one step of the group consisting of:	controlling a tuner to tune a converter to receive said at least one			

oort to instant specification.	Language
Supl	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	66

Claim Language	Support to parein appin	application med Indvertiber 3, 1961.	dns	Support to instant specification.	
) )	Reference	Language	Reference	Language	
			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a	<u>_</u>
				selected tuner, 214, to tune to the frequency of	ب
	,	-		cable channel 13, thereby causing its	_
				associated converter box, 201, to convert its	
	•				
•			Doco 420 Uses 0 15	to cause selected apparatus of said	
			rage 439 illies 9-13.	stationcable converter box, 201, to	
				receive the transmission of cable channel 13;	
specific channel	Column 19 lines 1-4	In the same fashion microcommiter 205	Dage 410 line 34 to		Т
designated by said one		may also instruct signal processor 200 to	1 ago 417 mmc 34 m	rig. / Cinusurates inclineds for monitoring	
of a code and datum:	·.	monitor single or multiple television	page 420 mic 2.	multiple programming channels, selecting	
		channels and/or radio channels for		programming and information of interest, and	
		programing of interest to a low or appeal		receiving said selected programming and	
		programming or interest to play of record.		information.	
			Dans 11 1:22 5 40	F	
			rage 11 illies 9-10.	i ne present invention consists of an	
				integrated system of methods and apparatus	
				for communicating programming. The term	
				"programming" refers to everything that is	
-				transmitted electronically to entertain, instruct	_
				or inform, including television, radio.	_
				broadcast print and computer programming as	
				well as combined medium programming	2
controlling a	Column 19 lines 27-29.	and also microcomputer, 205, may	Page 445 line 24 to	instructions causes controller 20 to switch	T,
selective transfer device		instruct switch 216 to turn TV set 202 on	nage 446 line 1	nomes on to monitor 200M and a second	-
to input to a		and timer 215 to time appropriately to	page 440 mile 1.	power on to monitor, 2021M, and commence	
•		"Well Ctreet Wook "		transferring the television output transmission	_
		Wall Succi Weck.		of microcomputer, 205, to said monitor,	
				202M; Automatically, controller, 20, inputs	'n
	•			a particular instruction to decoder, 145, via	
				said communications link, that causes	
				decoder, 145, to switch power on to monitor,	
				202M, and to tune monitor, 202M, in a	_
	00			predetermined fashion.	
			Page 446 lines 17.21	In so doing controller 20	
				202M to receive the decrimed video and	
				andio information of the "Well States and	
				audio miorination of the Wall Street Week	_
-				program, to display the video image of said	
			,	information, and to emit sound in accordance with said andio	
control signal detector .	Column 19 lines 45-	When the "Wall Street Week" transmission	Page 451 lines 6-7.	When the "Wall Street Week" fransmission	Т
at least a portion of said	49.	begins at 8:30 PM on a Friday evening,		begins at 8:30 PM on a Friday evening	
				Comment of the on a find of the comment of the comm	- :
				Sometime A Day	

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upport to instant specification.	Language
Sup	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Claim Language

299	Reference	Language	Reference	Language
		several instruction signals are identified by decoder, 203, and transferred to	Page 23 line 35 to	Subsequently, a second series of instructions
		microcomputer, 205 microcomputer, 205	page 24 line 4.	is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital
				signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.
			Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the
				relevant detector or detectors, 34, 57, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is
				preprogrammed to identify in a predetermined fashion or fashions subscriber
				station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.
			Page 24 lines 5-6.	Microcomputer, 205, evaluates the initial signal word or words which instruct it to
•			Page 451 lines 7-9.	the program instruction set in the first message of the "Wall Greet Week" evanue
•	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	instructs microcomputer, 205, to This base band signal is then transferred
į		inrough separate paths to three separate detector devices.	35 line 1.	through separate paths to three separate detector devices.
specific channel designated by said one	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting
oi a code aild datuill,		monitor single of multiple television channels and/or radio channels for		programming and information of interest, and receiving said selected programming and
	-	programing of interest to play or record.		information.
			Page 11 lines 5-10.	The present invention consists of an
:				integrated system of methods and apparatus
				"programming" refers to everything that is
				transmitted electronically to entertain, instruct
		-		or inform, including television, radio,

port to instant specification.	Language
Supl	Reference
pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	Agning mini

Claim Language	Support to parent	Support to parein apprication med invention 3, 1901.		Support to instant specification.
	Keterence	Language	Reference	Language
				well as combined medium programming.
controlling a control	Column 17 lines 28-33.	control information connections	Page 318 lines 2-7.	By such bus means, onboard controller, 14A,
signal detector to search		between signal processor, 130, and the		can cause any on or all of said decoders to
for at least one control		remote decoders which would permit		commence or cease processing and
signal in said at least	•	signal decoder, 130, to alter the methods		transmitting SPAM monitor information and
one		of operation of said remote decoders.		can cause any one or all of said decoders to
		Such control information connections are		change the location or locations that are
		included in signal processing apparatus		searched for SPAM information. Fig. 5 shows
specific channel	Column 19 lines 1.4	In the came fachion microcommuter 206	Daga 410 line 24 to	ulat,
decignated by said one	Column 12 miles 1-4.	mer else instruct else la solution and else else else else else else else els	rage 419 line 34 to	Fig. /C illustrates methods for monitoring
of a code and datum:		monitor single or multiple television	page 420 line 2.	multiple programming channels, selecting
		channels and/or radio channels for		programming and information of interest, and receiving said selected programming and
		programing of interest to play or record.	-	information.
			-	
			Page 11 lines 5-10.	The present invention consists of an
				integrated system of methods and apparatus
				for communicating programming. The term
				"programming" refers to everything that is
				transmitted electronically to entertain, instruct
				or inform, including television, radio,
				broadcast print, and computer programming as
				well as combined medium programming.
controlling a	Column 19 lines 27-29.	and also microcomputer, 205, may	Page 445 line 24 to	instructions causes controller, 20, to switch
selective transfer to		instruct switch, 216, to turn I'V set, 202, on	page 446 line 1.	power on to monitor, 202M, and commence
		and tuner, 215, to tune appropriately to		transferring the television output transmission
		"Wall Street Week."		of microcomputer, 205, to said monitor,
·				202M; Automatically, controller, 20, inputs
				a particular instruction to decoder, 145, via
				said communications link, that causes
				decoder, 145, to switch power on to monitor,
				202M, and to tune monitor, 202M, in a
	-			predetermined fashion.
	-		Page 446 lines 17-21	In so doing controller 20 conses monitor
	-			202M, to receive the decrypted video and
				audio information of the "Wall Street Week"
	-			program, to display the video image of said
-		,		information, and to emit sound in accordance with said andio
input to a computer at	Column 19 lines 43-49.	instruction signals embedded in the	Page 21 lines 23-24.	instruction signals embedded in the
				0

port to instant specification.	Language
IdnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
	Claim Language

Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification.
	Reference	Language	Reference	Language
least one control signal detected in said at least		"Wall Street Week" programing transmission.		"Wall Street Week" programming transmission.
one		When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening,	Page 451 lines 6-7.	When the "Wall Street Weck" transmission begins at 8:30 PM on a Friday evening,
		several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205.	Page 23 line 35 to page 24 line 4.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series.
			Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.
	·	These signals instruct microcomputer, 205,	Page 24 lines 5-6.	Microcomputer, 205, evaluates the initial signal word or words which instruct it to
specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.
			Page 11 lines 5-10.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio,

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apport to instant specification.	Language
Suppl	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Ciamii Languago

	Language	broadcast print, and computer programming as well as combined medium programming	Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programming transmission.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205,	evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of	instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input	buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of	"program instruction set.")  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said
7 4	Keterence		Page 21 lines 20-24.	Page 23 line 35 to page 24 line 16.				Page 44 lines 14-17.	Page 26 lines 20-28.
	Language		Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.			:		
Defenda	Kelefelice		Column 19 lines 42-44.	Column 19 lines 46-53.					
Claim Language			controlling a computer to respond to at least one control signal detected in said at least					×	

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7	Support to parent	Support to parent application filed November 3, 1981.	aans	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
):				initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a
·	Column 19 line 60 to column 20 line 1.	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.	Page 25 line 34 to page 26 line 2.	Particular combining.) At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by
		This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.		decoder, 203; transferred to microcomputer, 205;
			Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38
				43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to process said information automatically. Controller, 39, is
				preprogrammed to correct errors in retained received information by means of forward error correction techniques well
				known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art into digital information that subscriber
·				station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which
				said signal information should be transferred; and to transfer said signals to said apparatus.
		This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same	Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the
		instruction signal from processor, 204.		received composite video information and transmit the combined information to TV
		The viewer then sees a microcomputer		monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	

Claim Language	Support to parem	Support to parent application filed November 3, 1981.		Support to instant specification.	
	Keterence	Language	Reference	Language	
		generated graphic of his own stocks' performance	· .	subscriber's own portfolio performance overlaid on the studio generated graphic. And microcomputer, 205, commences	
one specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	T
			Page 11 lines 5-10.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.	
	Column 19 lines 14-15			3	Τ-
controlling a television monitor to display one of video and audio contained in said at least one	Column 19 lines 27-29.	and also microcomputer, 205, may instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	Page 445 line 24 to page 446 line 1.	instructions causes controller, 20, to switch power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	T
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	
specific channel designated by said one of a code and datum;	Column 19 lines 1-4.	In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.	Page 419 line 34 to page 420 line 2.	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	
			Page 11 lines 5-10.	뒤	
				VW/T 380 Amountin A Direct 27 of 163	C

pport to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Cimili Language

Language	integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio, broadcast print, and computer programming as well as combined medium programming.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	instructions causes controller, 20,; to switch power on to video recorder/player, 217,	controller, 20, causes recorder/player, 217, to record said information of the "Wall Street Week" program.
Reference		Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 445 lines 24-27.	Page 446 lines 18-23.
Language		microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X and may instruct control system, 220, to turn video recorder, 217, on and record "Wall Street Week,"					
Reference	Column 17 line 65- Column 18 line 4	Column 19 lines 23-27.					
Sanding		controlling a video recorder to one of record and play one of video and audio contained in said at least one					

SWIT 280, Appendix A, Page 38 of 183

pport to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anonage	A99

oort to instant specification.	Language
Supl	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anomage	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

_							
,	Street Week" program instructions causes controller, 20, to switch	power on to monitor, 202M, Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M,	and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio	Fig. 7C illustrates methods for monitoring multiple programming channels, selecting programming and information of interest, and receiving said selected programming and information.	The present invention consists of an integrated system of methods and apparatus for communicating programming. The term "programming" refers to everything that is transmitted electronically to entertain, instruct or inform, including television, radio.	broadcast print, and computer programming as well as combined medium programming.
		Page 445 line 24 to page 446 line 1.	Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.	Page 419 line 34 to page 420 line 2.	Page 11 lines 5-10.	
					In the same fashion, microcomputer, 205, may also instruct signal processor, 200, to monitor single or multiple television channels and/or radio channels for programing of interest to play or record.		
			. ,		Column 19 lines 1-4.		
					one specific channel designated by said one of a code and datum.		

claim 3, further comprising one step of the group consisting of:	. <u>a</u>	rage 39 lines 29-51.	The second secon
	s of the programing		A SPAIN message is the modality whereby
			the original transmission station that
	t at switch, I, and mixer,		originates said message controls specific
			addressed apparatus at subscriber stations
inputting an instruct-		•	
to-contact signal to a		Page 290 lines 26-31.	causes the oscillator, 6, then to cause

SWIT 280, Appendix A, Page 40 of 183

oort to instant specification.	Language
idnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Ciamii Canguago

$\neg$					· · · · · · · · · · · · · · · · · · ·	$\overline{}$
Language	switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	The next day, February 28, 1988 at 2:32 AM, receiving particular time information from said clock, 18, causes said controller, 20, again to cause said switch, 1, and said mixer, 3, to input the transmission of said master channel to said decoder, 30, and to cause said decoder, 30, to commence processing to detect a SPAM end of file signal.	Said message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30.  Receiving said message causes said controller, 39, to transmit said Read-Meters-of-Selected-Stations SPAM message to the controller, 20, of the signal processor, 200, of said station.	Executing said ones causes controller, 20, to transmit the current reading information of utilities meter, 262, to a remote metering station computer and cause said computer to process said information. Automatically, controller, 20, activates telephone connection, 22; inputs a particular telephone number	
Reference		Page 291 lines 21-24.	Page 402 lines 21-26.	Page 403 lines 7-12.	Page 405 lines 20-29.	
Language			An example of such a control signal is an instruction for the apparatus to contact a remote telephone unit.			
Kelerence						Column 18 lines 44-46 Column 18 lines 53-56
	processor		·	·		-

# SWIT 280, Appendix A, Page 41 of 183

oort to instant specification.	Language
oddnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguaga	Ciaim Language

Support to instant specification.	Language		In a predetermined fashion, controller, 20,	controls oscillator, 6, to sequence local oscillator 6 in the pattern captle channel 2	cable channel 4, cable channel 7, cable	channel 13, wireless channel 5, wireless	channel 9, wireless channel 13, then to repeat said pattern.				At the station of Fig. 7 and 7C, signal	processor, 200, scans sequentially all channels	the fashion of example #5.	In due course, one instance of said Select-	AT&T-News-Item message is detected at said	of said decoder, 30.	Receiving said Select-AT&T-News-Item	message causes said controller, 39, to transmit	said message to the controller, 20, of said	match causes said controller 39 to transmit	said message, with channel mark information	that identifies the particular channel in which	said message was embedded, to said	controller, 20, via control information	fransmission means and to continue	tanctioning in the tabilion of example 40.	All eight of said messages are commands. The 1st- and	3rd-new-program-message (#5) and the	1st-new-radio-program- message (#5) signals	are addressed to inicrocomputer, 203. Each informs said microcomputer of new	programming transmissions to which said	microcomputer can tune appropriate station receiver and display apparatus in fashions	described below. (Hereinafter said commands are called "guide commands" because they	SWIT 280, Appendix A, Page 42 of 183
ı	Reference		Page 248 line 35 to	page 249 line 3.							Page 422 line 23 to	page 423 line 10.														-	Page 267 lines 20-28	from example #5.						-
Support to parent application filed November 3, 1981.	Language		The controller, 20, inputs the local	the various channels to be received by	switch, 1, and mixers, 2 and 3.						Signal processor, 200, scans sequentially	all channels. When it identities a signal of interest it relays that information and the	channel identifier, in this illustration, to	microcomputer, 205.																				•
Support to parent a	Reference	Column 18 lines 56-66	Column 8 lines 27-29.					Column 2 line 64-	Column 3 line 8	Column 7 lines 35-39	Column 18 lines 58-62.				-		-	•						-							-			•
Claim Language	0		based on said step of	signal;	•						inputting an instruct-	computer	•											•				:						

Support to instant specification.	Language
	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	20

_	- 1	$\overline{}$	<del>,                                    </del>										_		_	_															_	
- Campanapanapanapanapanapanapanapanapanapa		can guide station control apparatus to desired programming.)			Fig. 7C illustrates methods for monitoring	programming and information of interest, and	receiving said selected programming and	In a predetermined fashion, controller, 20,	controls oscillator, 6, to sequence local	oscillator, 6, in the pattern: cable channel 2,	channel 13. wireless channel 5. wireless	channel 9, wireless channel 13, then to repeat	said pattern.	At this point, an instruction signal is generated at said program originating studio	embedded in the programming transmission,	and transmitted. Said signal is identified by	decoder, 203; transferred to microcomputer,	203;	In each decoder, the controller, 39, 44, or 47,	receives detected digital information from the	relevant detector or detectors, 34, 37, 38, 43,	signal information, controller, 39, 44, or 47, is	preprogrammed to correct errors by	means of forward error correction techniques	well known in the art; to convert, as may be	of input protocol techniques well known in the	art, into digital information that subscriber	station apparatus can receive and process;	to identify in a predetermined fashion or	fashions subscriber station apparatus to which	said signal information should be transferred;	and to transfer said signals to said apparatus
				-	Page 419 line 34 to	r age 420 mme 2.		Page 248 line 35 to	page 249 line 5.				Dan 25 1: 24 4-	rage 23 mie 34 to page 26 line 2.					Page 37 line 26 to	page 38 line 8.					-							
				:	Figure 6C illustrates methods for monitoring multiple programing channels	and selecting programing and information	in a predetermined fashion.	The controller, 20, inputs the local	oscillator, 6, a sequential pattern to select	use various channels to be received by switch. I and mixers 2 and 3			At this maint on incharaction arity	generated in the television studio	originating the programing and is	transmitted in the programing transmission.	I his signal is identified by decoder, 203, and transferred via processor, 204, to	microcomputer, 205. This signal instructs	microcomputer, 205, to transmit the first	overlay to I V set, 202, for as long as it	receives the same instruction signal from	microcomputer generated graphic of his	own stocks' performance overlay the studio	generated graphic.								
			Column 17 lines 62- Column 18 lines	Column 18 lines 45-68 Column 19 lines 45-53	Column 18 lines 43-45.			Column 8 lines 27-29.					Column 10 lines 60 to	page 20 line 2.						-												
								based on said step of	receiving said cablecast	J.Pimit,		,	inputting an instruct-	to-generate signal to a	computer																	

oort to instant specification.	Language
Suppor	Reference
pplication filed November 3, 1981.	Language
Support to parent a	Reference
Claim Language	99

Page 26 lines 4-11. Baid signal instruction in its received composit transmit the combonic composit transmit the combonic complex, 20. inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  The sequential on the Fig. 1C or page 248 line 3.  The sequential on the study of the signal study in a predetermined ability of said pattern.  The sequential of the signal study of said predetermined fashion, microcomputer, and the 1st-new-rasing signals are address of the signals are address of the signals are address of the signal study in the second on channel 3.  Page 435 lines 16-18.  Page 436 line 9 10.  Page 437 line 5.  Page 436 line 9 10.  Page 437 line 5.  Page 436 line 9 10.  Page 436 l		Reference	Language	Reference	Tanging	_
The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  Trocessor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer computer, 205, all predetermined fashion, microcomputer, 205, determined fashion, microcomputer, from example #5.  205, determined tashion, microcomputer, from example #5.  206, determined tashion, microcomputer, from example #5.  Page 436 line 9 to page 436 line 9 to page 437 line 3.			G. G.		Sanguer	
The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.  Page 451 line 3.  Page 451 line 3.  Page 451 line 3.  Page 443 line 9 to page 437 line 3.				Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the	
The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.  Page 435 line 3.  Page 445 line 5.  Page 435 lines 16-18.  Page 435 lines 10-18.  Page 435 lines 20-28 from example #5.  Page 436 line 9 to page 436 line 9 to page 437 line 3.	•				received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. IC which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.	
processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.  Page 437 line 3.	Column	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 451 line 3.  Page 248 line 35 to page 249 line 5.	And the Fig. 1C combining is displayed.  In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	
from example #5.  Page 436 line 9 to page 437 line 3.	Colum	Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator.	Page 435 lines 16-18.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	
r ř			14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	Page 267 lines 20-28 from example #5.	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired	
	Tr.			Page 436 line 9 to page 437 line 3.	Programming.)  Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The	

ipport to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	0

	Support to paren	Support to parent application filed November 3, 1981.		Support to instant specification.
Reference	ıce	Language	Reference	Language
				information so inputted is the aforementioned
-				determine-whether- to-select instructions that
				information and saidenable-WSW.on-
				CC13
				Said instructions contain one instance, and
				program-unit-of-interest information that is
				preprogrammed at said microcomputer, 205,
				contains a second instance of specific-WSW
				information, which second instance reflects
				ine wish of the subscriber of said station to yiew for record) said "Wall Street Week"
				program when said program is transmitted.
				Automatically, microcomputer, 205, compares
				said one instance to said
				program-unit-of-interest information and
				instance.
				Determining a match causes
				microcomputer, 205, automatically to input said please-fully-enable-WSW
				-on-CC13-at-particular- 8:30 information to the controller, 20.
			Page 439 lines 14-15.	to receive the transmission of cable
				channel 13;
Column 19 lines 23-25	23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the
				controller, 20.
			-	WSW-on-CC13-at- particular-8:30
	٠			information causes controller, 20, in a
				predefermined fashion, to prepare particular apparatus
			Page 439 lines 9-15.	to cause selected apparatus of said
				station:-capte converter box, 201, to receive the transmission of cable channel 13;

port to instant specification.	Language
ldnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Ciamin Language

, L	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;		At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission,	and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43,	and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques	well known in the art; to convert, as may be required, the corrected information, by means	or input protocol recninques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or	fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	:	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the	received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then
	Page 295 lines 6-8.	Page 439 lines 9-15.		Page 25 line 34 to page 26 line 2.		Page 37 line 26 to page 38 line 8.						Page 26 lines 4-11.	·
				At this point, an instruction signal is generated in the television studio originating the programing and is	transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs	microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from	processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.						
			Column 19 line 30	Column 19 lines 60 to page 20 line 2.									
		-		inputting an instruct- to-coordinate signal to a computer		·	·						

# SWIT 280, Appendix A, Page 46 of 183

port to instant specification.	Language
Supi	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Tonomone	Language

Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification,
	Keterence	Language	Reference	Language
				displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.
	Column 19 lines 31-34.	FIG 6C can also illustrate how programing delivered at different times to one place can be co-ordinated to give a multimedia presentation at one time in one place.	Page 451 line 3. Page 18 lines 24-27.	And the Fig. 1C combining is displayed.  Fig. 7C is a block diagram of signal processing apparatus and methods selecting receivable information and programming and controlling combined medium, multi-channel presentations.
			page 450 line 27 to page 451 line 11.	(To accomplish all this has required only that the subscribers of microcomputer, 205, fand other subscribers at other stations] cause the installation and connection of the apparatus shown in the figures of this submission, especially Fig. 7 (and 7C); caused his microcomputer, 205, to be preprogrammed as described above; and preinformed microcomputer, 205, of his wish to view said microcomputer, 205, of his wish to view said microcomputer, 205, of his wish to view said precess described at said microcomputer, 205.)  Then the combined medium combining process described above in "One Combined Medium" and in examples #1, #2, #3, #4, etc. commences. And the Fig. 1C combining is displayed.  But the combining of Fig. 1C is just part of a larger process.  When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is parely the freet.
based on said step of receiving said cablecast signal;	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable
				Constitution of the second sec

# SWIT 280, Appendix A, Page 47 of 183

ort to instant specification.	Language
oddnS	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Claim Language

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	0

$\overline{}$											
Support to instant specification.	Language	instance. Determining a match causes	said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.	Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer,	205;
IdnS	Reference			Page 439 lines 14-15.	Page 437 lines 1-6.		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2.	
Support to parent application filed November 3, 1981.	Language			-	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X					At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203,	and transferred via processor, 204, to microcomputer, 205. This signal instructs
Support to parent	Reference	4.			Column 19 lines 23-25.				-	Column 19 lines 60 to page 20 line 2.	
Claim Language	0			·						inputting an instruct- to-overlay signal to a computer	

port to instant specification.	Language
InS	Reference
Support to parent application filed November 3, 1981.	Reference
Claim Language	Agman tump

		292	CONCIONA	Language
	-		;	
		microcomputer, 205, to transmit the first	Page 37 line 26 to	In each decoder, the controller, 39, 44, or 47,
		overlay to TV set, 202, for as long as it	page 38 line 8.	receives detected digital information from the
		receives the same instruction signal from		relevant detector or detectors, 34, 37, 38, 43,
		processor, 204. The viewer then sees a		and 46. Upon receiving any given instance of
		microcomputer generated graphic of his		signal information, controller, 39, 44, or 47, is
		own stocks' performance overlay the studio		preprogrammed to correct errors by
		generated graphic.		means of forward error correction techniques
				well known in the art; to convert, as may be
_				required, the corrected information, by means
-				or input protocol techniques well known in the
				art, into digital information that subscriber
				station apparatus can receive and process;
				to identify in a predetermined fashion or
				fashions subscriber station apparatus to which
				said signal information should be transferred;
				and to transfer said signals to said apparatus
				÷
	•			
			Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at
				the PC-MicroKey 1300 to overlay the graphic
				information in its graphics card onto the
			•	received composite video information and
	<del>,</del>			transmit the combined information to I V
	٠			monitor, 202M. IV monitor, 202M, then
				displays the image shown in Fig. 1C which is
				the microcomputer generated graphic of the
				substitute is own portions periormance
				overtatu on ute studio generated grapnic.
			Page 451 line 3.	And the Fig. 1C combining is displayed.
based on said step of	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
iccelving said cablecast		oscillator, 6, a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
orginal,		the various channels to be received by capted 1 and mixers 2 and 2		oscillator, 6, in the pattern: cable channel 2,
		Switch, 1, and macis, 2 and 3.		cable channel 4, cable channel /, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
				said panein.
	Column 19 lines 17-23.	processor or monitor, 12, which reacts,	Page 435 lines 16-18.	In due course, while scanning sequentially
		in a predetermined fashion by passing also		all channels in the fashion of example #5, the
-		externally to microcomputer, 205, all	•	apparatus of the signal processor, 200,
		signals that it passes to butter/ comparator,		

Support to instant specification.	Language
Sup	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim I andiage	Ciami taugamgo

	٠			
Support to instant specification.  Language		All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)  Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13  Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable
Reference		Page 267 lines 20-28 from example #5.	page 437 line 3.	Page 439 lines 14-15.
Reference Language		14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.		
Claim Language				

port to instant specification.	Language
IdnS	Reference
ıω	Reference Language
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Support to parent application filed November 3, 1981.  Reference Language Reference
microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel $X$
At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.
This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs
microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it
receives the same instruction signal from processor, 204. The viewer then sees a
microcomputer generated graphic of his own stocks' performance overlay the studio
generated graphic.

Claim I anamas	Support to parent a	application filed November 3, 19	981. S	upport to instant specification.
Ciaim Language	Reference	Language	Reference	Language

required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.	And the Fig. 1C combining is displayed.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,  All eight of said messages are commands.  The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions
,	Page 26 lines 4-11.	Page 451 line 3.	Page 248 line 35 to page 249 line 5.	Page 435 lines 16-18.  Page 267 lines 20-28 from example #5.
			The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
			Column 8 lines 27-29.	Column 19 lines 17-23.
			based on said step of receiving said cablecast signal;	

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Support to instant specification.	Sanding	described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that	contain said particular specific-WSW information and said enable-WSW-on-CC13	program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information which second instance reflects	the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted.  Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and	determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-
Support to insta		described belov are called "guid can guide statio programming.)	6 B B B B	contain sa informatio CC13	progra preprogra contains a	the wish c view (or r program Automati said one i program-	determines a mainstance.  Determining a microcomputer, 2 said please-fully-on-CC13-at-partithe controller, 20.		- C G B O S
Reference			Page 436 line 9 to page 437 line 3.					Page 439 lines 14-15.	Page 437 lines 1-6.
Support to parent application filed November 3, 1981.	- Gan Gran							*	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X
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WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	In all cases, signals may convey information in discrete words, transmitted at separate times or in separate locations, that receiver apparatus must assemble in order to receive one complete instruction.	Decoder, 203, is preprogrammed to detect digital information on a particular line or lines (such as line 20) of the vertical interval of its	video transmission input, to correct errors in said information; to convert said corrected information into digital signals usable by microcomputer, 205, and to input said signals to microcomputer, 205, at its	Each one of said decoders is preprogrammed to detect and transfer to said onboard controller, 14, via said bus means, the meter-monitor information of every unencrypted SPAM message in the
	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 14 lines 22-25.	Page 21 lines 14-19		Page 315 lines 20-24.
				Buffer/comparator, 8, organizes the data stream that it receives according to a predetermined fashion that enables buffer/comparator, 8, among other things, to assemble signal units from signal words.	(The term "signal unit" hereinafter means one complete signal instruction or information message unit.	The term "signal word" hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video	The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks,
				Column 7 lines 36-39.	Column 2 lines 63-64.	Column 3 lines 3-8.	Column 15 lines 57-62.
				inputting to a computer a signal containing a message assembled in a network based			

Claim Language Support	to parent a	Support to parent application filed November 3, 1981.		Support to instant specification.
Reference	9	Language	Reference	Language
		systems, and possibly times of transmission.		is tuned.
			Page 44 lines 26-32.	Commands often contain meter-monitor segments. Said segments contain meter
				the information of said segments causes subscriber etation etonal processor evetens to
				assemble, record, and transmit meter records
•				to remote billing stations and monitor records
				described more fully below.
			Page 49 line 26 to	Meter-monitor segments contain meter
			Page 50 line 4.	information and/or monitor information.
				Examples of categories of such information
	-3:			include:
				unique codes for programming; and unique codes that identify the sources and
				suppliers of computer data.
	·			origins of transmissions (eg., network
				broadcast stations, cable head end stations);
				dates and times
		,	Page 28 lines 26-27.	monitor information that identifies what
				programming is available,
Column 8 lines 27-29,	27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
		oscillator, <b>6</b> , a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
		switch, 1, and mixers, 2 and 3.		cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
Column 19 lines 46-53	s 46-53.	When the "Wall Street Week" transmission	Page 23 line 35 to page	Said pattern. Subsequently, a second series of instructions
		begins at 8.30 PM on a Friday evening,	24 line 16.	is embedded and transmitted at said program
		several instruction signals are identified by		originating studio. Said second series is
		decoder, 203, and transferred to	*	detected and converted into usable digital
		microcomputer, 205. These signals instruct		signals by decoder, 203, and inputted to
		microcomputer, 205, upon command.		microcomputer, 205, in the same fashion as

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ch decoder, 203, inputs) ation of a particular set of llows said word or words ion of a file named ed on the contained floppy ted at RAM (from the input disk drive of said disk re the command "FILE" onsole keyboard to the installed disk operating er, such a set of loaded and run is called a on set.")	ch decoder, 203, inputs) ation of a particular set of llows said word or words ion of a file named ed on the contained floppy disk drive of said disk re the command "FILE" nnsole keyboard to the installed disk operating er, such a set of loaded and run is called a on set.") nstance of signal addressed to particular pparatus and that causes erform a particular function mnand is always ist a	ffer to which decoder, 203, inputs) the information of a particular set of one that follows said word or words the information of a file named (E. recorded on the contained floppy uld be loaded at RAM (from the input which the disk drive of said disk and run were the command "FILE" from the console keyboard to the evel of the installed disk operating (Hereinafter, such a set of ons that is loaded and run is called a on instruction set.") and is an instance of signal ion that is addressed to particular er station apparatus and that causes aratus to perform a particular function ons. A command is always ed of at least a  (Hereinafter, an instruction such as e signal of "GRAPPHICS ON" that ibscriber station apparatus to execute ing operation in synchronization is 'combining synch command." Said gnal word or words that preceded the ogram instruction set provide another of a combining synch command in	ch decoder, 203, inputs) ation of a particular set of llows said word or words ion of a file named ed on the contained floppy led at RAM (from the input disk drive of said disk re the command "FILE" nnsole keyboard to the installed disk operating er, such a set of loaded and run is called a nn set.") nstance of signal addressed to particular pparatus and that causes erform a particular function nnmand is always set on nnmand is always set on nnmand is always sorthorn set a "GRAPHICS ON" that tation apparatus to execute ion in synchronization is synch command in ords synch set provide another ining synch command in ords synchronized all onds series of instructions anning at said program Said second series is rted into usable digital 203, and inputted to
input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always	input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a  (Hereinaffer, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in	input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE EXE, recorded on the contained floppy disk, would be loaded at RAM (from the inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a  (Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining synch command." Said initial signal word or words that preceded the above program instruction set provide anothe example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.)  Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to
rogram instruction set.")	rogram instruction set.") command is an instance formation that is address bscriber station apparatu id apparatus to perform ( functions. A command nstituted of at least a	rogram instruction set.")  command is an instance formation that is address becriber station apparatu id apparatus to perform a functions. A command nstituted of at least a  (Hereinafter, an in above signal of "GRAF uses subscriber station a combining operation in selled a "combining synch tital signal word or word ove program instruction ample of a combining sy	command is an instance formation that is address becriber station apparatu id apparatus to perform a functions. A command nstituted of at least a (Hereinafter, an ir above signal of "GRAF uses subscriber station al combining operation in selled a "combining synch tital signal word or word ove program instruction ample of a combining sy at said word or words sy st said word or words sy st said word a combining sy at said word a combining sy at said word or words sy st said word or words sy becriber station compute ading and running informaticular combining.)  bsequently, a second ser embedded and transmitting inating studio. Said se fected and converted intimals by decoder, 203, ar
"prog			
	Page 44 lines 14-17.	Page 44 lines 14-17.	Page 44 lines 14-17.  Page 26 lines 20-28.  Page 23 line 35 to page 24 line 16.
	Page 44 li	Page 44 li	Page 44 li  Page 26 lii  Page 23 lii  24 line 16.
			iter, 205,
			These signals instruct microcomputer, 205,
			struct mic
			signals in:
			These
		· · · · · · · · · · · · · · · · · · ·	s 48-53.
			Column 19 lines 48-53
			Columr
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parent application filed November 3, 1981. Support to instant specif	Reference Language Reference Language	input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions (Hereinaffer, such a set of instructions that is loaded and run is called a "program instruction set.")	generate several graphic video overlays, Page 451 lines 7-11.  the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.	and to transmit these overlays to TV set,  202,  the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M.	upon command.  Page 44 lines 14-17. A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions.	Page 26 lines 20-28. (Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command.	Column 8 lines 27-29. The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.
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claim 4, further comprising one step of the group consisting of the group consisting of	Column 8 lines 58-62.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
inputting an instructio-contact signal to a processor			Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel that may or may not be cable channel 13)
				from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
. ,			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
		An example of such a control signal is an instruction for the apparatus to contact a remote telephone unit.	Page 402 lines 21-26.	The next day, February 28, 1988 at 2:32 AM, receiving particular time information from said clock, 18, causes said controller, 20, again to cause said switch, 1, and said mixer, 3, to input the transmission of said master channel to said decoder, 30, and to cause said decoder, 30, to commence processing to detect a SPAM end of file signal.
			Page 403 lines 7-12.	Said message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30.  Receiving said message causes said controller, 39, to transmit said Read-Meters-of-Selected-Stations SPAM message to the controller, 20, of the signal processor, 200, of said station.
			Page 405 lines 20-29.	Executing said ones causes controller; 20, to transmit the current reading information of utilities meter, 262, to a remote metering station computer and cause said computer to
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				process said information. Automatically, controller, 20, activates telephone connection, 22; inputs a particular telephone number
Column 8 lines 61-62 Column 18 lines 44-46 Column 18 lines 53-56 Column 18 lines 56-66 Column 19 lines 45-49				
Column 8 lines 27-29. The controller, 20, inputs the local oscillator, 6, a sequential pattern to sel the various channels to be received by switch, 1, and mixers, 2 and 3.	The controller, 20, in oscillator, 6, a seque the various channels switch, 1, and mixer	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.
Column 18 lines 58-62. Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to microcommitter 205.	Signal processor, 200 all channels. When i interest, it relays that channel identifier, in microcommune 100.	Signal processor, 200, scans sequentially all channels. When it identifies a signal of interest, it relays that information and the channel identifier, in this illustration, to	Page 422 line 23 to page 423 line 10.	At the station of Fig. 7 and 7C, signal processor, 200, scans sequentially all channels at its switch, 1, mixer, 3, and decoder, 30, in the fashion of example #5.
				AT&T-News-Item message is detected at said decoder, 30, and inputted to the controller, 39, of said decoder, 30.  Receiving said Select-AT&T-News-Item message causes said controller, 39, to transmit said message to the controller, 20, of said
				signal processor, 200 Determining a match causes said controller, 39, to transmit said message, with channel mark information that identifies the particular channel in which said message was embedded, to said controller, 20, via control information transmission means and to continue functioning in the fashion of example #5.
			Page 267 lines 20-28 from example #5.	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new
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	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;  In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art; into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the
	Page 248 line 35 to page 249 line 5.	Page 25 line 34 to page 26 line 2. Page 37 line 26 to page 38 line 8.	Page 26 lines 4-11.
=	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	generated in the television studio originating the programing and is transmitted in the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.	-
30 20 110	Column 8 lines 27-29.	Column 19 lines 60 to page 20 line 2.	·
	based on said step of receiving said broadcast signal;	inputting an instruct- to-generate signal to a computer	

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received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.	And the Fig. 1C combining is displayed.  In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 5 said pattern.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,  All eight of said messages are commands.  The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programmine.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-
	Page 451 line 3.  Page 248 line 35 to page 249 line 5.	Page 435 lines 16-18.  Page 267 lines 20-28 from example #5.	Page 436 line 9 to page 437 line 3.
	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	
	Column 8 lines 27-29.	Column 19 lines 17-23.	
,	based on said step of receiving said broadcast signal;		

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CC13	Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to vigat for properly said "Wall Commentation".	program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance. Determining a match causes	microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its
				Page 439 lines 14-15.	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.
		·			microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X		
					Column 19 lines 23-25.		·
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Support to instant specification.	Language	associated converter box, 201, to convert its	to cause selected apparatus of said	stationcable converter box, 201, to	receive the transmission of cable channel 13;	At this point, an instruction signal is	generated at said program originating studio,	and transmitted Said cional is identified by	decoder, 203; transferred to microcomputer,	205;	In each decoder the controller 20 44 cm 47	receives detected divital information from the	relevant detector or detectors, 34, 37, 38, 43,	and 46. Upon receiving any given instance of	signal information, controller, 39, 44, or 47, is	preprogrammed to correct errors by	means of forward error correction techniques	well known in the art; to convert, as may be	of innit protocol techniques well brown in the	art, into digital information that subscriber	station apparatus can receive and process;	to identify in a predetermined fashion or	fashions subscriber station apparatus to which	and to transfer said signals to said apparatus	:	Said signal instructs microcomputer, 205, at	the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the	received composite video information and	transmit the combined information to TV	displays the image shown in Fig. 1C which is	the microcomputer generated graphic of the	subscriber's own portfolio performance overlaid on the studio generated graphic.	
Sup	Reference		Page 439 lines 9-15.			Page 25 line 34 to page	26 line 2.				Dage 37 line 26 to	t age 37 line 20 to	0.													Page 26 lines 4-11.							
Support to parent application filed November 3, 1981.	Language					At this point, an instruction signal is	generated in the television studio	transmitted in the programing fransmission	This signal is identified by decoder, 203,	and transferred via processor, 204, to	microcomputer 205 to transmit the first	overlay to TV set, 202, for as long as it	receives the same instruction signal from	processor, 204. The viewer then sees a	microcomputer generated graphic of his	own stocks' performance overlay the studio	generated grapting.																
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Olivin I	Ciaim Language				-	inputting an instruct-to-	coordinate signal to a																			-							_

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			Page 451 line 3.	And the Fig. 1C combining is displayed.
	Column 19 line 30 Column 19 lines 31-34.	FIG 6C can also illustrate how programing	Page 18 lines 24-27.	Fig. 7C is a block diagram of signal
		delivered at different times to one place can		processing apparatus and methods selecting
		be co-ordinated to give a multimedia		receivable information and programming and
		presentation at one time in one place.	*	controlling combined medium, multi-channel
	-			presentations.
			page 450 line 27 to	(To accomplish all this has required only
			page 451 line 11.	that the subscriber of microcomputer, 205,
				[and other subscribers at other stations] cause
				the installation and connection of the
				apparatus shown in the figures of this
				submission, especially Fig. 7 (and 7C); caused
				his microcomputer, 205, to be preprogrammed
				as described above; and preinformed
				microcomputer, 205, of his wish to view said
				"Wall Street Week" program by causing the
				aforementioned select-WSW information to
				be recorded at said microcomputer, 205.)
	•			Then the combined medium combining
				process described above in "One Combined
				Medium" and in examples #1, #2, #3, #4, etc.
				commences. And the Fig. 1C combining is
				displayed.
				But the combining of Fig. 1C is just part of
				a larger process.
				When the "Wall Street Week"
				transmission begins at 8:30 PM on a Friday
			*	evening, the program instruction set in the
1				first message of the "Wall Street Week"
	•			generate not one but a plurality overlays. The
				combining of Fig. 1C is merely the first.
based on said step of	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
receiving said broadcast	,	oscillator, <b>o</b> , a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
Signal;		the various channels to be received by		oscillator, 6, in the pattern: cable channel 2,
		Swiich, 1, and mixers, 2 and 3.		cable channel 4, cable channel /, cable
				channel 15, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
				said pattern.

pport to instant specification.	Language
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Support to instant specification.	Language	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.	Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13  Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW
Sup	Reference	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.		Page 437 line 3.
application filed November 3, 1981.	Language	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to huffer/commandor.	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.		
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				-on-CC13-at-particular- 8:30 information to the controller, 20.	
			Page 439 lines 14-15.	to receive the transmission of cable channel 13;	
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	
·			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	
			Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	
inputting an instruct- to-overlay signal to a computer	Column 19 lines 60 to page 20 line 2.	At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs	Page 25 line 34 to page 26 line 2.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;	T
-		microcomputer, 205, to transmit the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a	Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of	

# SWIT 280, Appendix A, Page 67 of 183

port to instant specification.	Language
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	microcomputer generated graphic of his own stocks' performance overlay the studio generated graphic.		signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process; to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus
		Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is the microcomputer generated graphic of the subscriber's own portfolio performance overlaid on the studio generated graphic.
Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel said pattern.
Column 19 lines 17-23.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	Page 435 lines 16-18.  Page 267 lines 20-28 from example #5.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.

port to instant specification.	Language
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pplication filed November 3, 1981.	Language
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Claim Language	29

Claim Language	Defended to	Deference of the parent application incu inventor 3, 1301.		Support to instant specification.
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				Each informs said microcomputer of new
				programming transmissions to which said
				microcomputer can tune appropriate station
				receiver and display apparatus in fashions
				described below. (Hereinafter said commands
				are called "guide commands" because they
			-	can guide station control apparatus to desired
				programming )
			Dage 426 line 0 to	Description of the property of
		_	1 4 85 4 50 11115 9 10	Receiving said Select-WSW-Program- Unit
			page 437 line 3.	message causes decoder, 203, to input
	•			the information segment of said message to
				the CPU of microcomputer, 205, The
				information so inputted is the aforementioned
				determine-whether- to-select instructions that
				contain said nortionlar ensaits MCW
				Colitain said particular specific- w S w
				information and said enable-WSW-on-
-		•		CC13
				Said instructions contain one instance, and
				program-unit-of-interest information that is
				nreprogrammed at said microscommiter 205
				preprogrammed at said interocomputer, 202,
				contains a second instance of specific-w 5 w
			·	information, which second instance reflects
				the wish of the subscriber of said station to
				view (or record) said "Wall Street Week"
		-		program when said program is transmitted.
				Automatically, nucrocomputer, 205, compares
			•	said one instance to said
				program-unit-of-interest information and
				determines a match with said second
				instance.
				Determining a match causes
				The state of the s
,				microcomputer, 205, automatically to input
		•		said piease-fully-enable-w.S.w
	•			-on-CC13-at-particular- 8:30 information to
				the controller, 20.
		•	Page 439 lines 14-15.	to receive the transmission of cable
				channel 13;
-	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner,	Page 437 lines 1-6.	Determining a match causes microcomputer,
		214, to switch box, 201, to channel A		205, automatically to input said

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	please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted. Said signal is identified by decoder, 203; transferred to microcomputer, 205;	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to correct errors by	means of forward error correction techniques well known in the art; to convert, as may be required, the corrected information, by means	of input protocol techniques well known in the art, into digital information that subscriber station apparatus can receive and process;
		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 25 line 34 to page 26 line 2.	Page 37 line 26 to page 38 line 8.		
					At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission. This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205. This signal instructs	microcomputer, 205, to <b>transmit</b> the first overlay to TV set, 202, for as long as it receives the same instruction signal from processor, 204. The viewer then sees a microcomputer generated graphic of his own stocks' performance overlay the studio	generated graphic.	
					Column 19 lines 60 to page 20 line 2.			
					inputting an instruct- to-transmit signal to a computer		-	

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'.	·			to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus
				:
			Page 26 lines 4-11.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the
				received composite video information and transmit the combined information to TV
				monitor, 202M. TV monitor, 202M, then displays the image shown in Fig. 1C which is
				the microcomputer generated graphic of the
				overlaid on the studio generated graphic.
			Page 451 line 3.	And the Fig. 1C combining is displayed.
based on said step of	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
signal;		switch, 1, and mixers, 2 and 3.	page 210 mile 0.	oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.
	Column 19 lines 17-23.	in a predetermined fashion by passing also externally to microcomputer, 205, all	Page 435 lines 16-18.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
		14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being taloning and account.	Page 267 lines 20-28 from example #5.	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5)
		ochig edevised oli challiel A.		signals are addressed to interocomputer, 203.  Each informs said microcomputer of new programming transmissions to which said
				microcomputer can tune appropriate station receiver and display apparatus in fashions
				described below. (Hereinafter said commands are called "puide commands" because they
			-	can guide station control apparatus to desired
				programming.)

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application filed November 3, 1981	Language	
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	Claim Language	

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			Page 436 line 9 to page 437 line 3.	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13  Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance of suid station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.
			Page 439 lines 14-15.	to receive the transmission of cable channel 13;
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus

Lauguage	The state of the s	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;		In all cases, signals may convey information in discrete words, transmitted at separate times or in separate locations, that receiver apparatus must assemble in order to receive one complete instruction.	Decoder, 203, is preprogrammed to detect digital information on a particular line or lines (such as line 20) of the vertical interval of its video transmission input: to correct errors in	said information; to convert said corrected information into digital signals usable by microcomputer, 205; and to input said signals to microcomputer, 205, at its	4. Each one of said decoders is preprogrammed to detect and transfer to said onboard controller 14. via said bus mans the
NCICICINC		Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.		Page 14 lines 22-25.	Page 21 lines 14-19	٠	Page 315 lines 20-24.
Lunguage						Buffer/comparator, 8, organizes the data stream that it receives according to a predetermined fashion that enables buffer/comparator, 8, among other things, to assemble signal units from signal words.	(The term "signal unit" hereinafter means one complete signal instruction or information message unit.	The term "signal word" hereinafter means one full discrete appearance of a signal as embedded at one time in one location on a transmission. Examples of signal words are a string of one or more digital data bits encoded together on a single line of video	or sequentially in audio.  The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing
20maratary					Column 2 line 64- Column 3 line 8 Column 7 line 35 Column 17 line 62- Column 18 line 4 Column 18 lines 45-68	Column 7 lines 36-39.	Columin 2 lines 63-64.	Column 3 lines 3-8.	Column 15 lines 57-62.
						inputting to a computer a signal containing a message assembled in a network		·	

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Support to instant specification	Language	unencrypted SPAM message in the transmission to which its associated apparatus is tuned.  Commands often contain meter-monitor segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include:  unique codes for programming; and unique codes that identify the sources and suppliers of computer data.  origins of transmissions (eg., network source stations, broadcast stations, cable head end stations); dates and times	monitor information that identifies what programming is available,	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 5, said pattern.	
ans	Reference	Page 44 lines 26-32.	Page 49 line 26 to Page 50 line 4.	Page 28 lines 26-27.	Page 248 line 35 to page 249 line 5.	
application filed November 3, 1981.	Language	each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission.			The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	
Support to parent appli	Reference				Column 8 lines 27-29.	Column 19 line 45
1 miol	Ciaiiii Laiiguage				based on said step of receiving said broadcast signal; and	

## signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as SWIT 280, Appendix A, Page 74 of 183

Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital

Page 23 line 35 to page 24 line 16.

When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by

Column 19 lines 46-53.

computer executable code assembled in a network

inputting to a

decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, ... upon command.

Support to instant specification.	Language	the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinaffer, such a set of	instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all	subscriber station computers in commencing loading and running information for a particular combining.)  Subsequently, a second series of instructions	is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as
Sup	Reference	- -		Page 44 lines 14-17.	Page 26 lines 20-28.	Page 23 line 35 to page	24 line 16.
application filed November 3, 1981.	Language					These signals instruct microcomputer, 205,	to
Support to parent appl	Reference	Α				Column 19 lines 48-53.	
Oloim I on mino	Cianni Language						,

Support to instant specification.	Language	the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	the program instruction set in the first message of the "Wall Street Week" example instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.	Said signal instructs microcomputer, 205, at the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the received composite video information and transmit the combined information to TV monitor, 202M.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the
idnS .	Reference		Page 451 lines 7-11.	Page 26 lines 4-8.	Page 44 lines 14-17.	Page 26 lines 20-28.
application filed November 3, 1981.	Language		generate several graphic video overlays,	and to transmit these overlays to TV set, 202,	upon command.	
Support to parent appl	Reference					
	Claim Language					

oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat

above program instruction set provide another example of a combining synch command

In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local

Page 248 line 35 to page 249 line 5.

oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.

The controller, 20, inputs the local

Column 8 lines 27-29.

based on said step of receiving said broadcast signal.

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application filed November 3, 1981.	Language		
Support to parent appli	Reference		
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Determining a match causes microcomputer, 205, automatically to input said please-fullyenable-WSW-on-CC13-at-particular-8:30 information to the controller, 20.	decoder, 145, to determine, in a predetermined fashion, that power is not on to monitor, 202M, and to respond by	As Fig. 4 shows,in the preferred embodiment, microcomputer, 205, may also automatically substitute for local control, 225, in predetermined fashions in inputting control information to said controller, 20, on the basis of preprogrammed instructions and information previously inputted to said microcomputer, 205.	cause microcomputer, 205, to input particular preprogrammed instructions to said controller, 20,	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C	Via a conventional multi- channel cable transmission, in a fashion well known in the art, four channels of conventional television programming and two conventional FM radio signals are inputted to a first alternate contact of switch, 1, and to mixer, 2.	Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast,
Page 437 lines 1-3.	Page 444 lines 33-34.	Page 288 lines 13-20.	Page 445 lines 8-10.	Page 435 lines 16-18.	Page 248 lines 22-26 from example #5.	Page 250 lines 13-16 from example #5.
Microcomputer, <b>205</b> , is preinformed of the time of cablecasting.	When that time comes, microcomputer, 205, receives no program identification signals whatever from TV signal decoder, 203, which indicates that the set, 202, is not on.	Microcomputer, 205, instructs signal processor, 200, to	-	pass all program and channel identifiers on all programing being cablecast on the multi-channel system.		
Column 19 lines 8-9.	Column 19 lines 9-20.					
12. The method of claim 3 or claim 4, wherein an instruct-to-react signal is one of communicated to and	responded to by a computer, said method further comprising the steps of:					

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Support to instant specification.	Language		of the first message of the "Wall Street Week"	program	Then, in a predetermined fashion, control	processor, 39J, determines that said first	command contains subject matter	meter-monitor information causing said	control processor, 39J, to transmit a message	that consists of execution segment	information that is addressed to	microcomputer, 205, (and that causes	microcomputer, 205, to process the	information of the meter-monitor segment immediately following said execution segment	information as new programming now being	transmitted on the channel of the channel	mark of said meter-monitor segment segment)	then meter-monitor segment information that	includes the "program unit identification	code" and subject matter information of said	first command and the channel mark of	cable channel 13 (Said message whose	transmission is caused by receiving said first	command enables microcomputer, 205, in a	fashion described more fully below, to tune	automatically to receive the program that said	"program unit identification code" identifies if	said program is of microst,	All eight of said messages are commands.	The 1st- and 3rd-new-program-message (#5)	and the 1st-new-radio-program- message (#5)	Each informs said microcomputer of new	programming transmissions to which said	microcomputer can tune appropriate station	described below. (Hereinafter said commands	are called "guide commands" because they	can guide station control apparatus to desired programming.)	
Sup	Reference				Page 252 lines 15-35	from example #5.				-					-													=	Page 267 lines 20-28	from example #5.								
ation filed November 3, 1981.	Language													-			`															,						
Support to parent applicati	Reference						-				,						-				•						-								-			-
	Ciaim Language	,							,																			·			•							

Support to parent application filed November 3, 1981.	Reference Language Reference Language
Support to pa	Reference
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Support to instant specification.	Language	microcomputer, 205, may also automatically substitute for local control, 225, in predetermined fashions in inputting control information to said controller, 20, on the basis of preprogrammed instructions and information previously inputted to said microcomputer, 205.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In example #5, controller, 12, is preprogrammed to process monitor information, and completing the controlled functions invoked by any given message causes controller, 12, automatically to process the information of said message as monitor information, in the fashion of controller, 39, of decoder, 203, in example #3 Automatically, control processor, 123, transfers to buffer/comparator, 14, via matrix switch, 12 I, header information that identifies a transmission of monitor information of available programming then all of the information that is recorded at said SPAM-input-signal memory. (In each example #5 case, the information that is transferred-together with its newly added header
Š	Reference	Page 288 lines 16-20.	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.	Page 258 line 28 to page 259 line 12 from example #5.
application filed November 3, 1981.	Language	Signal processor, 200, receives this instruction from microcomputer, 205, at its processor or monitor, 12, which reacts,	in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator, 14		
Support to parent appli	Reference				*
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## SWIT 280, Appendix A, Page 79 of 183

Support to instant specification.	Language
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Support to parent a	Reference
Claim I anguage	Cianti Language

981. Support to instant specification.	Reference	informationcontinues to be called by its previously assigned name; for example, the 1st-old-radio-program-message (#5).)	Page 257 line 24 to page 258 line 19.	protectioning television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder. 30	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder 30	controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Page 265 line 27 to Said radio-detection-complete information Page 266 line 21.  to cause the selection of the next frequency in the predetermined radio frequency selection	pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder,	After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder 40 controller 20	causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.	detectors, Page 250 lines 13-17. Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast
pplication filed November 3, 1981	Language		The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval								This will define the timing of the composite outputs of the digital detectors, 34, 37, and 38 in FIG. 2A, and 43 in FIG.
Support to parent applica	Reference		Column 9 lines 53-57.								-
	Claim Language		inputting at least a portion of one of said broadcast signal and said cablecast signal to	a control signal detector to detect at least one control signal; and							

port to instant specification.	Language
dnS .	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anomage	Agung Tunio

Language	program which is the message of the first combining synch command.	Receiving said embedded information causes the binary SPAM information of said first command, with error correcting information, to be detected at detector, 34;	which decodes the the embedded signal information of said command and transmits said signal information to digital detector, 43, which detects the binary information with error correcting bit information of said command and transfers said binary and bit information to controller, 44.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46.	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast	television transmissions available to a local television antenna of conventional design	Decoder, 30, which is shown in detail in Fig. 2A, and decoder, 40, which is shown in Fig. 2B, detect signal information embedded in the respective inputted television and radio frequencies, and output said signals and said modified signals to buffer/comparator, 8.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,
Reference		251 lines 8-11.	Page 263 lines 19-24.	Page 37 lines 26-28.	Page 29 lines 4-15.	-	Page 29 line 33 to page 30 line 5.	Page 435 lines 16-18.
Language					A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast	television transmissions available to a local television antenna of conventional design.	If one returns to FIG. 1, one sees that the three separate lines of information outputted from TV signal decoder, 30, are then gated to a buffer/comparator, 8, which also receives other inputs from the other separate receivers comprising similar filters, demodulators, and decoders for other channels of interest.	[processor or monitor, 12, reacts] in a predetermined fashion by passing also externally to microcomputer, 205, all
Keterence					Column 6 lines 23-30.		Column 7 lines 6-11.	Column 19 lines 18-20.
							outputting said at least one control signal to said computer.	

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent a	Reference
Claim I anguage	Cianii Languago

	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5)	and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205.	programming transmissions to which said	microcomputer can tune appropriate station	described below. (Hereinafter said commands	are called "guide commands" because they	can guide station control apparatus to desired programming.)	In example #5, controller, 12, is	information, and completing the controlled	functions invoked by any given message	causes controller, 12, automatically to process	the information of said message as monitor information in the fashion of controller 30 of	decoder, 203, in example #3	Automatically, control processor, 12J,	transfers to buffer/comparator, 14, via matrix	switch, 12 1, neader information that identifies a transmission of monitor information of	available programming then all of the	information that is recorded at said SPAM-	input-signal memory. (In each example #5	case, the information that is transferred	together with its newly added header	informationcontinues to be called by its	previously assigned name; for example, the 1st-old-radio-program-message (#5).)
	Page 267 lines 20-28 from example #5.						,	Page 268 line 28 to	example #5.														
signals that it passes to buffer/ comparator,	14.																		-				
					-									<u>.</u>			•						

claim 3, wherein said claim 30 and 40, received cablecast to receive a particular frequency at a particular time interval.	3. The method of   Column 9 lines 53-55.   The local oscillator, being thus sequenced,   Page 257 line 24 to	Said detection-complete information causes
ved		controller, 20, to cause oscillator, 6, to cause
pax	ncy at a	the selection of the next channel in the
in information		predetermined television channel selection
		pattern: wireless channel 9. Automatically
communicated via a		oscillator, 6, causes mixer, 3, to select the

Latinguage		pport to instant specification.  Language	Sup	application filed November 3, 1981.	Support to parent Reference	Claim Language
	t application filed November 3, 1981.	[ anomage	Reference	Language	Reference	A9m9
Reference I annuage		pport to instant specification.	Sup	application filed November 3, 1981.	Support to parent	laim Lanonage

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	Sup	Support to instant specification.
29m9	Reference	Language	Reference	Language
telecommunications				frequency of channel 9 and input said
network and				frequency of interest, at a fixed frequency, to
				decoder, 30
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
				the input of wireless channel 9 to decoder, 30,
				controller, 20, causes oscillator, 6, to cause
			- 00	the selection of the next channel in the
	-			predefinitied television channel selection pattern: wireless channel 13
-			Page 265 line 27 to	Said radio-detection-complete information
			Page 266 line 21.	causes controller, 20, to cause oscillator, 6,
-				to cause the selection of the next frequency in
				the predetermined radio frequency selection
				pattern: 99.0 MHz. Automatically oscillator,
*				6, causes mixer, 2, to select said frequency
				and input it, at a fixed frequency, to decoder,
				40
				predetermined fashion, that a particular
-				predetermined period of time has elapsed from
				the input of said 99.0 MHz frequency to
			-	decoder, 40, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				frequency in the predetermined radio
-	Column 6 lines 26-30.	As shown, the input signals are the entire	Page 79 lines 11-15	The inputed information is the entire range of
	•	range of frequencies or channels	0	frequencies or channels transmitted on the
		transmitted on the cable and the entire		cable and the entire range of broadcast
		range of broadcast television transmissions		television transmissions available to a local
		available to a local television antenna of		television antenna of conventional design.
	Column 15 lines 57 62	Conventional design.	December 11:11:11	
	Column 15 miles 57-02.	The signals for which the decoders are	rage 515 lines 20-24.	Each one of said decoders is preprogrammed
•		monitoring are likely to be unique digital		to detect and transfer to said onboard
		codes that may identify each programming		controller, 14, via said bus means, the
		or data unit received and the source of		meter-monitor information of every
		each. They may identify networks,		unencrypted SPAM message in the
		broadcast stations, channels on cable		transmission to which its associated apparatus
		systems, and possibly times of		is tuned.

Support to instant specification.	Language		Commands often contain meter-mointor segments. Said segments contain meter information and/or monitor information, and	the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include:	unique codes for programming; and unique codes that identify the sources and suppliers of computer data origins of transmissions (eg., network	source stations, broadcast stations, cable head end stations); dates and times	monitor information that identifies what programming is available,	causes the oscillator, 6, then to cause switch, 1, and muxer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates
Sup	Reference		<b>Fage 44 lines 26-32.</b>		Page 49 line 26 to Page 50 line 4.			Page 28 lines 26-27.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
Support to parent application filed November 3, 1981.	Language	transmission.							Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
Support to parent	Reference	,							Column 8 lines 58-60.		-
	Claim Language				,				in consequence of information communicated via said telecommunications network, said method further comprising the step of		-

	Support to parent	Support to parent application filed November 3, 1981.	Idily:	Support to instant specification	_
Ciaiiii Laiiguage	Reference	Language	Reference	Language	
	_	-			_
	-			said message controls specific addressed	
	Column 8 lines 63 65		:	apparatus at subscriber stations.	
	Column 8 miles 02-05.	identify increased unit, 12, nas the capacity to	Fage 59 lines 29-31.	A SPAM message is the modality whereby	
,	,	20 and medicular signals for controller,		the original transmission station that	
	-	20, and pass them to controller, 20, over		originates said message controls specific	
		Condoi montagnon mes.		addressed apparatus at subscriber stations.	
-			For example page 531	Said contained messages that are addressed to	
			lines 17-22	parameter of the decoder 20 DD AM	
			11103 11-22.	apparatus such as decoder, 50, FRAIN	
				controller, 20, and switch controller, 20A, that	
				exist within the equipment case of a signal	
	×			processor, 200, are inputted to said apparatus	_
				from controller, 12, via controller, 20, rather	
				than via matrix switch 259	
	Column 9 lines 47-52.	The controller, 20, is programed to	Page 248 line 17 to	Signal processor 200 is preprogrammed	
		sequence the local oscillator 6 to select	200 240 line 5		
		sequence are rocal oscinator, 6, to series	page 249 lille 3.	with information that identifies each cable and	
ı		each desired frequency for a specific time		over-the-air (hereinafter, "wireless")	_
	*	interval in accordance with a		transmission or frequency in the locality of the	
	٠	predetermined pattern. This pattern may be		subscriber station of Fig. 3 as well as the	_
		selected in accordance with standard		standard broadcast and cablecast macrices that	
		broadcast and cablecast practices known to		annly on soid franchissions and franchiss	
	•	exist on that transmission line or fraguence.		apply on said transmissions and nequencies	
		exist on that transitussion line of frequency.		In a predetermined fashion, controller, 20,	
			•	controls oscillator, 6, to sequence local	
-				oscillator, 6, in the pattern: cable channel 2,	
			•	cable channel 4 cable channel 7 cable	
				channel 13 wireless channel 5 wireless	
			-	channel 19, wilciess channel 9, wilciess	
	-			challiel 9, wireless channel 13, then to repeat said pattern	
			-		
			Page 257 line 24 to	Said detection-complete information causes	
			page 258 line 19.	controller, 20, to cause oscillator, 6, to cause	
			•	the selection of the next channel in the	
				predetermined television channel selection	
				processing clear of the matter of the mattern wireless channel 0 Automotically	
		`		parcelli: wireless channel 7. Automatically	
				oscillator, o, causes mixer, 3, to select the	
				frequency of channel 9 and input said	
				frequency of interest, at a fixed frequency, to	
				decoder, 30	
		-		Controller, 20, has capacity for	
				keeping track of elapsed time, and after	
				determining in a predetermined fashion that a	

determining in a predetermined fashion that a particular predetermined period of time has

Section 1	Support to parent appl	application filed November 3, 1981.	Supp	Support to instant specification.
Ciain Language	Reference	Language	Reference	Language
		-	-	
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
communicating to a	Column 8 lines 46-50.	The controller, 20, also inputs the digital	Page 33 lines 18-20.	Controller, 20, has capacity for controlling the
remote station one of a		recorder, 16, to direct it to output the		operation of all elements of the signal
code and datum		information from the memory of the		processor
		recorder, 16, to telephone connection, 22,		
		and thence to the collection site at the	Page 273 lines 4-6.	The first stage of said sequence involves
		remote geographical location.		transferring audit information to a particular
				first host computer at a first remote station.
			Page 273 lines 21-25	causes controller 20 to cause recorder 16
				to transmit all recorded meter audit records
	·	•		and norther other andit information to
				and particular office addit information to
				telephone connection, 22, which causes said
				connection, 22, to transmit said records and
				information to said first computer.
	Column 8 lines 4-7.	Upon determining in a predetermined	Page 31 line 30 to	Buffer/comparator, 14, receives
		fashion that a signal word or unit should be	page 32 line 1.	signal information that is meter information
		passed,buffer/comparator, 14, transmits the		and/or monitor information from controller,
		combined information to a digital recorder,		12, and from other inputs; organizes said
		16.		received information into meter records and/or
				monitor records (called, in aggregate,
				hereinafter, "signal records") in a
			,	predetermined fashion or fashions; and
				transmits said signal records to a digital
				recorder, 16,
	Column 2 lines 63-66.	(The term "signal unit" hereinafter means	Page 14 lines 27-29.	(The term "signal unit" hereinafter means one
		one complete signal instruction or		complete signal instruction or information
		information message unit. Examples of		message unit. Examples of signal units are a
	_ 20	signal units are a unique code identifying a		unique code identifying a programming unit,
		programing unit, or a		or a
	Column 3 lines 3-8.	The term "signal word" hereinafter means	Page 14 line 32 to page	The term "signal word" hereinafter means one

Page 14 line 32 to page 15 line 2.

embedded at one time in one location on a

one full discrete appearance of a signal as

are a string of one or more digital data bits

transmission. Examples of signal words

encoded together on a single line of video

or sequentially in audio.

Processor or monitor, 12, analyzes, in a

Column 7 lines 50-54.

designating one of

transmission. Examples of signal words are a string of one or more digital data bits encoded

together on a single line of video or sequentially in audio.

Page 31 lines 10-14.

embedded at one time in one location on a full discrete appearance of a signal as

port to instant specification.	Language	
oddnS	Reference	
application filed November 3, 1981.	Language	
Support to parent a	Reference	
Claim I anguage	Ciumi Languago	

Support to instant specification.	Language	from buffer/comparator, 8, and decryptor, 10; analyzes said signals in a predetermined fashion; and determines whether they are to be transferred to external equipment or to buffer/comparator, 14, or both.  If [a signal or signals] contain meter and/or monitor information and are to be processed further, controller, 12, selects, assembles, and transfers the appropriate information to	Buffer/comparator, 14, receives signal information that is meter information and/or monitor information organizes said received information into meter records and/or monitor records (called, in aggregate, hereinafter, "signal records") and transmits said signal records to a digital recorder, 16, and/or to one or more remote sites has capacity to determine, in a predetermined fashion or fashions, what received information should be recorded,	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6,
Sup	Reference	Page 31 lines 18-22.	Page 31 line 30 to page 32 line 6.	Page 257 line 24 to page 258 line 19.	Page 265 line 27 to   Page 266 line 21.
Support to parent application filed November 3, 1981.	Language	pre-determined fashion, the signal words and units that it receives and determines whether they are to be passed to external equipment or to buffer/comparator, 14, for further processing or both.  If [a signal or signals] are to be processed further, processor or monitor, 12, passes them to buffer/comparator, 14.	Buffer/comparator, 14, has means for identifying, according to a predetermined fashion, which signals are to be recorded.	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.	
Support to parent	Reference	Column 7 lines 59-60.	Column 7 lines 65-67.	Column 9 lines 53-57.	
Olomba I miolo	Ciaini Language			information contained in said received cablecast signal and	

	Support to parent appl	application filed November 3, 1981	July.	Support to instant specification
Claim Language	Reference	Language	Reference	Language
		_		
			,	to cause the selection of the next frequency in
				the predetermined radio frequency selection
)				pattern: 99.0 MHz. Automatically oscillator,
				6, causes mixer, 2, to select said frequency
				and input it, at a fixed frequency, to decoder,
				After determining in a predetermined
		•		fashion that a particular predatermined period
				of time has elanced from the input of said 00 0
				Mile framework of decides 40 control of 200
				Minz liequency to decoder, 40, controller, 20,
				causes oscillator, 6, to cause the selection
				of the next frequency in the predetermined
				radio frequency selection pattern: 100.0 MHz.
		This will define the timing of the	Page 250 lines 13-17	Evample #5 hearns with the embedding and
		tins will define the mining of the	rage 200 miles 13-17.	Example #3 begins with the embedding and
		composite outputs of the digital defectors,		transmitting, at the remote station that
			\$-	oligiliates tile Wall Street Week broadcast, of the first message of the "Wall Street Week"
				program which is the message of the first
				combining synch command.
	,		251 lines 8-11.	Receiving said embedded information causes
				the binary SPAM information of said first
				command, with error correcting information,
			-	to be detected at detector, 34;
			Dage 762 lines 10 34	Charles of an officer of the Charles of the Charles
			1 age 200 miles 17-24.	said illioi illatioii to Iaulo uccouci, 42, which decodes the the embedded cional
				information of soid command and transmits
				conditional information to divited detector 42
÷	_			which detects the binary information with
				error correcting bit information of said
				command and transfers said hinary and hit
				information to controller, 44.
		-		
			Page 37 lines 26-28.	In each decoder, the controller, 39, 44, or 47,
	*			receives detected digital information from the
				relevant detector or detectors, 34, 37, 38, 43,
		·		and 46.
	Column 7 lines 6-11.	If one returns to FIG. 1, one sees that the	Page 29 line 33 to page	Decoder, 30, which is shown in detail in Fig.
		three separate lines of information	30 line 5.	2A, and decoder, 40, which is shown in Fig.
		outputted from TV signal decoder, 30, are		2B, detect signal information embedded in the

port to instant specification.	Language
dnS	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Aganguar music

		then gated to a buffer/comparator, 8, which		respective inputted television and radio
		also receives other inputs from the other		frequencies, and output said signals and
		separate receivers comprising similar filters, demodulators, and decoders for		said modified signals to buffer/comparator, 8.
		other channels of interest.		
	Column 7 lines 47-49.	Buffer/comparator, 8, passes signal words	Page 30 lines 29-30.	Buffer/comparator, 8, transfers signals that do
		and units not identified as requiring		not require decryption directly to processor or
		decryption directly to processor or monitor,		controller, 12.
	Column 7 lines 50-54.	Processor or monitor, 12, analyzes, in a	Page 31 lines 10-14.	Controller 12 receives the signals inputted
		pre-determined fashion, the signal words	)	from buffer/comparator. 8. and decryptor 10:
		and units that it receives and determines		analyzes said signals in a predetermined
		whether they are to be passed to external		fashion; and determines whether they are to be
		equipment or to buffer/comparator, 14, for		transferred to external equipment or to
		further processing or both.		buffer/comparator, 14, or both.
information to be	Column 7 lines 54-58.	If a signal or signals are to be passed	Page 31 lines 14-18.	If a signal or signals are to be transferred
delivered in said		externally, processor unit, 12, identifies, in		externally, in a predetermined fashion
received cablecast		a pre-determined fashion, the external		controller, 12, identifies the external apparatus
	- <del>-</del>	equipment to which the signal or signals		to which the signal or signals are addressed
		are addressed and passes them to		and transfers them to the appropriate port or
		appropriate jack ports for external		ports for external transmission.
		transmission.		

A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor
Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See
Column 19 lines 60-63. At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.		
Column 19 lines 60-63.		
14. A method of controlling		

Oloim I angiogo	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Cialili Laliguage	Reference	Language	Reference	Language
i			page 26 lines 1-4 and	
			20-26, page 69 lines 3-	
			0, and page 90 mes 4-	
at least one of	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an
· · · · ·	-	configuration of equipment in a home or		ultimate receiver station; is a subscriber
		office of other television and/or radio		station in the field distribution system, 93, of
		6F and 6G is facilitated by consideration	-	the intermediate transmission station of Fig. 6; and may be a home an office a theater a
		first of individual examples of the types		hotel or any other station where programming
		of co-ordinated presentations that the		such as television or radio is displayed to
		signal apparatus and methods described here can permit		persons.
			Page 396 lines 8-10	Features henefits and modes of oneration of
			0	the station of Fig. 7 are demonstrated in the
				following individual examples.
a plurality of receiver	Column 3 lines 48-51.	Another method has application at receiver	Page 12 lines 30-35.	It is the further purpose of this
stations each including		sites such as private homes or public places		invention to provide means and methods for
		like theaters, hotels, brokerage offices, etc.,		the automation of ultimate receiver stations,
	0	whether commercial establishments or not.		Such ultimate receiver stations may be
				private homes or offices or commercial
	-		•	establishments such as theaters, hotels, or
				brokerage offices.
a receiver,	Column 19 lines 28-29.	and tuner, 215, to tune appropriately to	Page 445 line 35 to	and to tune monitor, 202M, in a
		"Wall Street Week."	page 446 line I.	predetermined fashion.
			Page 446 lines 17-21.	In so doing, controller, 20, causes monitor,
				202M, to receive the decrypted video and
				audio information of the "Wall Street Week"
				program, to display the video image of said
-				information, and to emit sound in accordance
a cional detector	Column 6 lines 18 50	The second contract of	D 74 11	With Said audio
a signal detector,	Column o mies 48-50.	this base band signal is then transmitted	rage 34 line 33 to page	I his base band signal is then transferred
		unough separate paths to three separate detector devices.	33 line 1.	Inrougn separate paths to three separate detector devices.
a processor, each of	Column 6 lines 23-26.	A signal processor apparatus for	Page 29 lines 4-7.	Fig. 2 shows one embodiment of a
said plurality of		simultaneous use with a cablecast input that		signal processor. Said processor, 26, is
receiver stations		conveys both television and radio	*	configured for simultaneous use with a
adapted to		programing and a broadcast television		cablecast input that conveys both television
		input is shown in Figure 1.		and radio programming and a broadcast

ort to instant specification.	Language
Supp	Reference
t application filed November 3, 1981.	Language
Support to paren	Reference
Claim I anguage	Agung Tunibung

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	ddnS	Support to instant specification.
Ciaim Language	Reference	Language	Reference	Language
			,	
				television input.
detect at least one control signal	Column 19 lines 63-64.	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.	Page 26 lines 1-2.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and
		•	Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the
				relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is
				preprogrammed to identify in a predetermined fashion or fashions subscriber
-				station apparatus to which said signal information should be transferred; and to
	Column 19 lines 17-23.	processor or monitor 12, which reacts	Page 435 lines 16-18	Transfer said signals to said apparatus.  In due course while scanning sequentially
		in a predetermined fashion by passing also		all channels in the fashion of example #5, the
		signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a		apparatus of the signal processor, 200,  All eight of said messages are commands.
		predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is	Page 267 lines 20-28 from example #5.	The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5)
		being televised on channel X.	•	signals are addressed to microcomputer, 205.
			-	programming transmissions to which said microcomputer can tune appropriate station
				receiver and display apparatus in fashions described below. (Hereinafter said commands
				are called "guide commands" because they can guide station control apparatus to desired
•				programming.)
				Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input
			Page 436 line 9 to	the information segment of said message to the CPU of microcomputer 205 The
			page 437 line 3.	information so inputted is the aforementioned
				determine-whether- to-select instructions that
		-		information and said enable-WSW-on-
				CC13 Said instructions contain one instance, and
				program-unit-of-interest information that is
				CWIT 280 Annualiz A Duna 01 of 192

oort to instant specification.	Language
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preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;	Signal processor, 26, has a controller device which includes programmable RAM controller, 20, ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely; an automatic dialing device 24, and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs)
-		Page 439 lines 14-15.	Page 33 lines 7-20.	Page 23 line 35 to page 24 line 16.
			The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.
			Column 8 lines 20-27.	Column 19 lines 46-53.
			and programmed to process downloadable executable code, said method of controlling comprising the steps of:	

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ort to instant specification.	Language
Supp	Reference
upplication filed November 3, 1981.	Language
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Claim I anguage	Ciaim Language

Language	and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.)	The station receives programming from many sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic
Kererence		Page 44 lines 14-17.	Page 26 lines 20-28.	Page 324 lines 23-33.
Language				Incoming programing transmissions are received at the relevant receiver points, antennas, 50, 57, and 60, and other means, 62. They are fed along the conventional paths described above.
Vereience				Column 10 lines 61-64.
				receiving at

## SWIT 280, Appendix A, Page 93 of 183

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				buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a
			Page 44 lines 14-17.	Program instruction set.")  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a
			Page 26 lines 20-28.	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute
	•			a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all
				subscriber station computers in commencing loading and running information for a particular combining.)
perform one of the group consisting of:	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
		,	For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal
	Column 5 lines 16-20.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a	Page 16 lines 6-10.	processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259 [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable

port to instant specification.	Language
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t application filed November 3, 1981.	Language
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	_	_								_		_					_					_					_										_	1		_	
Support to instant specification.	Language	random access memory controller ("PRAM	controller") that permits revision of operating	patterns and instructions.		Signal processor, 200, is preprogrammed	with information that identifies each cable and	over-the-air (hereinafter, "wireless")	transmission or frequency in the locality of the	subscriber station of Fig. 3 as well as the	standard broadcast and cablecast practices that	apply on said transmissions and frequencies	In a predetermined fashion, controller, 20,	controls oscillator, 6, to sequence local	oscillator, 6, in the pattern: cable channel 2,		channel 13, wireless channel 5, wireless	channel 9, wireless channel 13, then to repeat	said pattern	Said detection-complete information causes	controller, 20, to cause oscillator, 6, to cause	the selection of the next channel in the	predetermined television channel selection	pattern: wireless channel 9. Automatically	oscillator, 6, causes mixer, 3, to select the	frequency of channel 9 and input said	frequency of interest, at a fixed frequency, to	decoder, 30	Controller, 20, has capacity for	keeping track of elapsed time, and after	determining in a predetermined fashion that a	particular predetermined period of time has	elapsed from the input of wireless channel 9 to	decoder, 30, controller, 20, causes	oscillator, 6, to cause the selection of the next	channel in the predetermined television	channel selection pattern: wireless channel 13.	Signal processor, 200, is preprogrammed	with information that identifies each cable and	over-the-air (hereinafter, "wireless")	transmission or frequency in the locality of the
	Reference					Page 248 line 17 to	page 249 line 5.													Page 257 line 24 to	page 258 line 19.	•							-			•						Page 248 line 17 to	page 249 line 5.		
Support to parent application filed November 3, 1981.	Language	programmable random access memory	controller ("PRAM controller") that	permits revision of operating patterns and	instructions.	The controller, 20, is programed to	sequence the local oscillator, 6, to select	each desired frequency for a specific time	interval in accordance with a	predetermined pattern. This pattern may be	selected in accordance with standard	broadcast and cablecast practices known to	exist on that transmission line or frequency.			-															-	-		,			,	The controller, 20, is programed to	sequence the local oscillator, 6, to select	each desired frequency for a specific time	interval in accordance with a
Support to parent	Reference					Column 9 lines 47-52.							`																									Column 9 lines 47-52.			
Claim Language	9					(a) selecting and	receiving a caolecast	signal based on one of a	presence and absence of	a broadcast signal; and																							,					(b) selecting and	receiving a broadcast	signal based on one of a	presence and absence of

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		selected in accordance with standard broadcast and cablecast practices known		standard broadcast and cablecast practices that apply on said transmissions and frequencies
		to exist on that transmission line or		In a predetermined fashion, controller, 20,
		frequency.	•	controls oscillator, 6, to sequence local
				oscullator, 6, in the pattern: cable channel 2,
	-			channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
	·			said pattern.
			Page 257 line 24 to	Said detection-complete information causes
			page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
	•			decoder, 30
				Controller, 20, has capacity for
				keeping track of elapsed time, and after
				determining in a predetermined tashion that a
			-	particular predetermined period of time has
	•			elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
		-		oscillator, 6, to cause the selection of the next
			<del>- 1</del>	channel in the predetermined television
transferring said	Column 11 lines 50_57	if controller/commuter 73 determines	Dana 278 line 22 to	For example committee 72 months of the
downloadable	Column 11 mics 50-57.	that programme incoming the receiling 53	r age 526 line 22 to	CDAM moons that continue "
executable code to		charly be transmitted immediately to the	page 327 mmc 1.	or Aivi incosage mai comains given program
		field distribution system 93 via cable		added course mark information of said
		channel modulator 87		message identifies distribution amplifier 63
		controller/commuter 73 instructs matrix	-	December (1997)
		switch 75 to configure its switches so as to		receiving said incosage causes computer, 73, to determine in a predetermined faction, that
		transfer programing transmissions inputted		said "code" information matches particular
		from TV receiver, 53, to the output that		preprogrammed schedule information of
		leads to modulator, 87.		programming that is scheduled to be
				retransmitted immediately upon receipt to
				field distribution system, 93, via cable channel
				modulator, 87. In its preprogrammed fashion,
				so determining causes computer, 73, to cause

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application filed November 3, 1981.	Language
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				matrix switch, 75, to configure its switches so as to transfer the programming transmission	
				inputted (via distribution amplifier, 63) to	
				matrix switch, 75, from TV receiver, 53, to	
				that output of matrix switch, 75, that outputs to modulator 87	
a transmitter;	Column 10 lines 43-47.	and/or to equipment that outputs them	Page 325 lines 1-4.	apparatus that outputs said transmissions	T
		over various channels to the cable system's		over various channels to the cable system's	
		field distribution system, 93, which		field distribution system, 93, which apparatus	
		equipment includes here cable channel		includes cable channel modulators, 83, 87,	
		modulators, 83, 87, and 91, and channel		and 91, and channel combining and	
		combining and multiplexing system, 92.		multiplexing system, 92.	$\neg$
receiving said at least	Column 10 lines 61-64.	Incoming programing transmissions are	Page 324 lines 23-33.	The station receives programming from many	
Olic		received at the relevant receiver points,		sources. Transmissions are received from a	
		antennas, 30, 37, and 00, and onler means,	-	satellite by satellite antenna, 50, 10% noise	
-		oz. They are red along the conventional naths described above		amplifiers, 31 and 32, and 1 V receivers, 53,	
		paus described above.		24, 23, and 30. Iniciowave nansinissions are	
				teceived by iniciowave aniema, 37, and	
	~			television video and audio receivers, 58 and	
			-	25. Collycillolidi I V Dioducast Italismissions are received by enterna 60 and TV	
			•	demodulator 61 Other electronic	
				programming transmissions are received by	
,				other programming input means, 62. Each	
			7		
				through 62, transfers its received	
				transmissions into the station by hard-wire	
H	Column 4 lines 5-6.	These techniques employ signals embedded in programs.	Page 13 lines 25-26.	The present invention employs signals embedded in programming	
	Column 10 lines 45-63			8	T
	Column 19 lines 14-15				
	Column 19 lines 20-23				
control signal at said	Column 4 lines 14-17.	The embedded signals may run and repeat	Page 14 lines 3-5.	In programming transmissions, given signals	
transmitter station,		continuously throughout the programing or		may run and repeat, for periods of time,	
wherein said at least		they may run only occasionally or only	•	continuously or at regular intervals. Or they	
operates to			,	may tan only occasionany of only once.	
	Column 8 lines 58-60.	Control signals can be passed to the	Page 290 lines 26-31.	causes the oscillator, 6, then to cause	
		apparatus by means of the programing	•	switch, 1, and mixer, 3, to select information	
		densities of the first of the section of the sectio		of a particular master cable control channel (that may or may not be cable channel 13)	
-	-	i	•	(may may of may not be eable channel 13)	

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				from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	**
	Column 17 lines 39- 44.	Signal processor apparatus have the	Page 59 lines 29-31.  Page 15 lines 16-23.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.  The frequencies may conyey television, radio.	
		ability to identify instruction and information signals in one or more inputted television and radio programing transmissions, identify and discriminate among one or more pieces of external equipment to which sinch signals		or other programming transmissionsThe scanners/switches, working in parallel or series or combinations, transfer the transmissions to receiver/decoder/detectors that identify signals encoded in programming	
		addressed, and transfer such signals to such equipment as directed.	Page 34 lines 24-26.	to digital information; identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus	
			Page 44 lines 14-15.	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that	
			Page 95 lines 18-21.	Receiving the header and execution segment of said first message causes controller, 39, to determine that said message is addressed to URS microcomputers, 205, and to transfer said message to	
	Column 8 lines 58-60			mocompany, 200.	$\neg$
•	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific	
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oort to instant specification.	Language
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application filed November 3, 1981.	Language
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Support to instant specification.	Language	addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30. PRAM	controller, 20, and switch controller, 20A, that	exist within the equipment case of a signal processor, 200, are inputted to said apparatus	from controller, 12, via controller, 20, rather than via matrix switch, 259	In a predetermined fashion, controller, 20,	controls oscillator, 6, to sequence local	oscillator, 6, in the pattern: cable channel 2,	channel 13 wireless channel 4, cable	channel 9, wireless channel 13, then to repeat	said pattern.	Por example, computer, 13, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.		Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, SWIT 280, Appendix A, Page 100 of 183
S	Reference		For example, page 531 lines 17-22.		-		Page 248 line 35 to	page 249 line 5.		_			Page 329 line 1.		Page 337 lines 1-8.
Support to parent application filed November 3, 1981.	Language	control information lines.		4.			The controller, 20, inputs the local	oscillator, 6, a sequential pattern to select	the various channels to be received by	switch, I, and mixers, 2 and 3.			that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.		Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,
Support to parent a	Reference						Column 8 lines 27-29.						Column 19 line 64-	Column 20 line 1	Column 12 lines 45-47.
Claim Language	Ciaini Language						execute said	downloadable	executable code; and		•		least one control signal to said transmitter,		and transmitting an information transmission comprising said

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application filed November 3, 1981.	Language
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981. Support to instant specification.	Reference	94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier,	y Page 16 lines 6-10.	atterns and atterns and instructions.  Page 290 lines 26-31.  The switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13)	from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;		Page 59 lines 29-31. Or sa	Page 248 line 1 / to page 249 line 5.	may be nown
Support to parent application filed November 3, 1981	Language		[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory	controller ("PKAM controller") that permits revision of operating patterns and instructions. Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.				I he controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a	predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known
Support to parent a	Reference		Column 5 lines 16-20.	Column 8 lines 58-60.			-	Column 9 lines 47-52.	
	Claim Language	downloadable executable code and said at least one control signal.				-			

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1	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Ciaim Language	Reference	Language	Reference	Language
				oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.
			Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30
				Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television
	Column 7 lines 50-54.	Processor or monitor, 12, analyzes, in a pre-determined fashion, the signal words and units that it receives and determines whether they are to be passed to external equipment or to buffer/comparator, 14, for further processing or both.	Page 31 lines 10-14.	channel selection pattern: wireless channel 13. Controller, 12, receives the signals inputted from buffer/comparator, 8, and decryptor, 10; analyzes said signals in a predetermined fashion; and determines whether they are to be transferred to external equipment or to buffer/comparator, 14, or both.
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
			For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather
				than via math Switch, 2.35

instruction signals embedded in the "Wall Street Week" programming transmission.	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,  All eight of said messages are commands.  The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13  Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to	view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said
Page 21 lines 23-24.	Page 435 lines 16-18.  Page 267 lines 20-28 from example #5.	Page 436 line 9 to page 437 line 3.	
instruction signals embedded in the "Wall Street Week" programing transmission.	processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/ comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.		
Column 19 lines 43-44.	Column 19 lines 17-23.		
15. The method of claim 14, wherein one of said downloadable executable code and	a portion of identification data with respect to said downloadable executable code are		

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upplication filed November 3, 1981.	Language
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Claim I anguaga	Cianni Language

determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;		The present invention employs signals embedded in programming.	In television and radio they may appear in a portion of the audio range that is not normally rendered in a form audible to the human ear.
		Page 439 lines 14-15.	Page 13 lines 25-26.	Page 14 lines 11-14.
			These techniques employ signals embedded in programs.	In television and radio they may appear in a portion of the audio range that is not normally rendered in a form audible to the human ear.
			Column 4 lines 5-6.	Column 4 lines 22-25.
			embedded in a television signal.	

and to tune monitor, 202M, in a predetermined fashion.	202M, to receive the decrypted video and audio information of the "Wall Street Week"	program, to display the video image of said information, and to emit sound in accordance	with said audio	page Subsequently, a second series of instructions	is embedded and transmitted at said program	originating studio. Said second series is	detected and converted into usable digital	signals by decoder, 203, and inputted to	microcomputer, 205, in the same fashion as	the first series. Microcomputer, 205,	evaluates the initial signal word or words	which instruct it to load at RAM (from the
Page 445 line 35 to page 446 line 1.	Page 446 lines 17-21.			Page 23 line 35 to page	24 line 16.				٠			
and tuner, 215, to tune appropriately to "Wall Street Week."				When the "Wall Street Week" transmission	begins at 8:30 PM on a Friday evening,	several instruction signals are identified by	decoder, 203, and transferred to	microcomputer, 205. These signals instruct	microcomputer, 205, upon command.	•		
The method of Column 19 lines 28-29. wherein a n program is d at a receiver	,			Column 19 lines 46-53.								
16. The method of claim 14, wherein a television program is displayed at a receiver	station of said plurality of receiver stations and said downloadable	executable code		programs one of said	receiver station	processor and a	computer to one of			,		-

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input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combinine.)		Microcomputer, 205, evaluates the initial signal word or words which instruct it to	the program instruction set in the first message of the "Wall Street Week" example SWIT 280, Appendix A, Page 105 of 183
	Page 44 lines 14-17.	Page 26 lines 20-28.		Page 24 lines 5-16.	Page 451 lines 7-11.
				These signals instruct microcomputer, 205,	to generate several graphic video overlays,
	÷		Column 18 lines 14-26 Column 19 line 67- Column 20 line 2 Column 20 lines 28-43	Column 19 lines 48-53.	
				output video in the context of a television program,	· · · · · · · · · · · · · · · · · · ·

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			-	instructs microcomputer, 205, to generate not one but a plurality overlays. The combining of Fig. 1C is merely the first.	
		which microcomputer, 205, has the means to generate and transmit and TV set, 202, has the means to receive and display,	Page 19 line 29 to page 20 line 20.	Microcomputer, 205, is a conventional microcomputer system for generating computer graphic information, for receiving a	
		and to		said graphic information onto the video information of said transmission by graphic overlay techniques, well known in the arread	
				for outputting the resulting combined information to a TV monitor, 202M, in a	
				composite video transmission TV monitor, 202M, has capacity for receiving	
				composite video and audio transmissions and	
		·		tor presenting a conventional television video image and audio sound.	
		transmit these overlays to TV set,	Page 26 lines 4-8.	Said signal instructs microcomputer, 205, at	
				the PC-MicroKey 1300 to overlay the graphic information in its graphics card onto the	
				received composite video information and	
				monitor, 202M.	
to process a subscriber	Column 19 lines 63-64.	This signal is identified by decoder, 203,	Page 26 lines 1-2.	Said signal is identified by decoder, 203;	i
television program, and		microcomputer, 205.		nansience to incrocomputer, 200, and	_
			Page 37 line 26 to page	In each decoder, the controller, 39, 44, or 47,	
		*	38 line 8.	receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43,	
				and 46. Upon receiving any given instance of	
				signal information, controller, 39, 44, or 47, is preprogrammed to identify in a	
				predetermined fashion or fashions subscriber	
				station apparatus to which said signal	
				transfer said signals to said apparatus.	
	Column 19 line 53-56.	Subsequently in the program, the host says,	Page 25 lines 26-33.	During this time the program may show the	
		did is the past week "and a studio		so-called talking licad of the nost as he describes the behavior of the stock market	
		generated graphic is pictured.		over the course of the week. Then the host	
					] !

Claim I anguage	Support to parent applicati	application filed November 3, 1981.	dnS	Support to instant specification.
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٠				says, "Now as we turn to the graphs, here is
				what the Dow Jones Industrials did in the
			-	week just past," and a studio generated
				graphic is transmitted. Fig. 1B shows the
				image of said graphic as it appears on the video screen of TV monitor 202M
	Column 20 lines 20-28			
	Column 20 lines 47-50			
to select information	Column 19 lines 64-66.	This signal instructs microcomputer, 205,	Page 26 lines 1-8.	Said signal is identified by decoder, 203;
supplementing said		to transmit the first overlay to TV set,		transferred to microcomputer, 205; and
television program.		202,		executed by microcomputer, 205, at the
				system level as the statement, "GRAPHICS
				ON". Said signal instructs microcomputer,
				205, at the PC-MicroKey 1300 to overlay the
				graphic information in its graphics card onto
				the received composite video information and
		-		the second of th
				transmit the combined information to 1 V
	Column 19 lines 48-53	These signals instruct microcomputer 205	Page 24 lines 5.16	Microcommuter 205 and nates the initial
			. 1 - 6 - 7 111103 2- 1 0.	signal word or words which instruct it to
	_			
		to generate several graphic video	Page 451 lines 7-11.	the program instruction set in the first
		overlays,		message of the "Wall Street Week" example
				instructs microcomputer, 205, to generate not
				one but a plurality overlays. The combining
	-			of Fig. 1C is merely the first.
		which microcomputer, 205, has the	Page 19 line 29 to page	Microcomputer 205 is a conventional
		means to generate and transmit and TV set,	20 line 20.	microcomputer system for generating
		202, has the means to receive and display,		computer graphic information; for receiving a
		and to		composite video transmission; for combining
				said graphic information onto the video
		,		information of said transmission by graphic
•				overlay techniques, well known in the art; and
	_			for outputting the resulting combined
,				information to a TV monitor, 202M, in a
	-			composite video transmission 1 v
				monitor, 202M, has capacity for receiving
•				for precenting a conventional television yides
				image and audio sound

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	Said signal instructs microcomputer, 205, at	the PC-MicroKey 1300 to overlay the graphic	information in its graphics card onto the	received composite video information and	transmit the combined information to TV	monitor, 202M.
	Page 26 lines 4-8.					
	transmit these overlays to TV set,	202,				
	-					
•						

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port to instant specification.	Language
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random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next
	Page 248 line 17 to page 249 line 5.	Page 257 line 24 to page 258 line 19.
programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	
	Column 9 lines 47-52.	

A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed	SWIT 280, Appendix A, Page 109 of 183
Page 59 lines 29-33.	
At this point, an instruction signal is generated in the television studio originating the programing and is	
Column 19 lines 60-63. At this genera	
18. A method of controlling a network, said network having	

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oddnS	Reference	
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	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
		transmitted in the programing transmission.		apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially
				transmitted SPAM messages.
	•	·	Page 25 line 34 to page 26 line 1.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.
			Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a meter-monitor.
-			page 25 inco., occ. page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11	
	Column 15 lines 57-62.	The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of	Page 315 lines 20-24.	Each one of said decoders is preprogrammed to detect and transfer to said onboard controller, 14, via said bus means, the meter-monitor information of every
		each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission.		unencrypted SPAM message in the transmission to which its associated apparatus is tuned.
			Page 44 lines 26-32.	Commands often contain meter-monitor segments. Said segments contain meter information and/or monitor information, and the information of said segments causes
				subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records
				to remote ratings stations in fashions that are described more fully below.
			Page 49 line 26 to Page 50 line 4.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information
				include: unique codes for programming; and

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				unique codes that identify the sources and
				suppliers of computer data.
				origins of transmissions (eg., network
				source stations,
				broadcast stations, cable head end stations);
		·		dates and times
			:- 00	
	-		rage 26 lines 20-27.	monitor information that identifies what
a remote intermediate	Column 10 lines 15-20	The citing arrangement and and arrangement	Dece 224 1:200 0 17	Tiest annual is available,
transmitter station and	Committee 12-20:	FIGS 1 A 2R and 2C and their warrants	r age 324 miles 0-17.	Fig. 2.3.4. 2D. 2C. and 3D. and 4L.
		se appropriate can be used to automate the		1 igs. 2, 2A, 2D, 2C, and 2D, and inch variants
		as appropriate, can be used to automate the		as appropriate, can be used to automate the
		operations of an intermediate transmission	•	operations of intermediate transmission
		point whether it be a broadcast station		stations that receive and retransmit
		transmitting only a single channel of		programming. The stations so automated may
		programing or a cable system cablecasting		transmit any form of electronically transmitted
		many channels.		programming, including television, radio,
				print, data, and combined medium
				programming and may range in scale of
				operation from wireless broadcast stations that
				transmit a single programming transmission to
				cable systems that cablecast many channels
				simultaneously.
a receiver station,	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an
	٠	configuration of equipment in a home or		ultimate receiver station; is a subscriber
		office or other television and/or radio		station in the field distribution system, 93, of
		receiving site. Consideration of FIGS.		the intermediate transmission station of Fig. 6,
		6F and 6G is facilitated by consideration,		and may be a home, an office, a theater, a
		first, of individual examples of the types		hotel, or any other station where programming
		of co-ordinated presentations that the		such as television or radio is displayed to
		signal apparatus and methods described		persons.
			Page 396 lines 8-10.	Features benefits and modes of oneration of
				the efection of Eight 7 and demonstrated in the
				file station of rig. 7 are demonstrated in the following individual examples.
said remote	Column 3 lines 8-12	Cuch strings may or may not have	Dogs 15 lines 2 6	

The signal processing apparatus outlined in Page 324 lines 8-17.

whole signal units, or groups of partial or

whole signal units or combinations.)

one of a broadcast and a | Column 10 lines 15-20.

predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts of signal units,

Such strings may or may not have

Column 3 lines 8-12.

said remote intermediate transmitter station including units, or groups of partial or whole signal units or combinations.)

Such strings may or may not have predetermined data bits to identify the beginnings and ends of words. Signal words may contain parts of signal units, whole signal

Page 15 lines 2-6.

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Claim Language	Ciuini Lunguago

0	Reference	Language	Reference	Language	
cablecast transmitter,		FIGS. 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.		outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming, including television, radio, print, data, and combined medium programming and may range in scale of operation from wireless broadcast stations that transmit a single programming transmission to cable systems that cablecast many channels simultaneously.	
a plurality of selective transfer devices each operatively connected to	Column 10 lines 41-43.	by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78,	Page 324 line 34-35.	a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and 78,	
said one of a broadcast and a cablecast transmitter,	Column 10 lines 40-47.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78, and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.	Page 324 line 31 to page 325 line 4.	Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire, a conventional matrix switch, 75, well known in the art, one or more recorder/players, 76 and 78, apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and	
a receiver for receiving at least one instruct signal from an origination transmitter,	Column 10 lines 30-39.	The facility receives programing from many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56.  Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59.  Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programing input means, 62, can receive	Page 324 lines 23-31.	The station receives programming from many sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic programming transmissions are received by other programming input means, 62.	
	Column 19 lines 60-63.	programming nanismissions. At this point, an instruction signal is	Page 59 lines 29-33.	A SPAM message is the modality whereby the SWIT 280, Appendix A, Page 112 of 183	

Claim Language	Support to parent	Support to parent application filed November 3, 1981.		Support to instant specification.
	Reference	Language	Reference	Language
	·	generated in the television studio originating the programing and is transmitted in the programing transmission.		original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially
•			Page 25 line 34 to page 26 line 1.	transmitted SPAM messages.  At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.
			Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor
			page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	
	Column 4 lines 5-6.	These techniques employ signals embedded in programs.	Page 13 lines 25-26.	The present invention employs signals embedded in programming.
	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	witch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,

# SWIT 280, Appendix A, Page 113 of 183

A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed

Page 59 lines 29-31.

Support to instant specification.	Language	apparatus at subscriber stations.  This base band signal is then transferred through separate paths to three separate detector devices.	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station;	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.			At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said SWIT 280, Appendix A, Page 114 of 183
	Reference	Page 34 line 35 to page 35 line 1.	Page 325 line 34 to page 326 line 7.	Page 59 lines 29-33	Page 326 lines 19-20.	Page 328 lines 14-16.	Page 325 line 34 to page 326 line 7.
Support to parent application filed November 3, 1981.	Language	This base band signal is then transmitted through separate paths to three separate detector devices.	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and	,	Cable program controller and computer, 73, is the central automatic control unit for the transmission facility.	Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.	Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and
Support to parent	Reference	Column 6 lines 48-50.	Column 11 lines 3-5.		Column 11 lines 15-17.	Column 11 lines 44-46.	Column 11 lines 3-5.
Claim I anguage	Ciaiiii Laiiguage		a control signal detector,		and one of a controller and a computer capable of controlling	at least one of said plurality of selective transfer devices, said remote intermediate transmitter station being adapted to	detect at least one control signal,

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			·	transmission that are addresses to ITS apparatus of said intermediate transmission station;	[ <del></del>
·			Page 59 lines 29-33	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The	
				information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	
	Column 6 lines 48-50.	This base band signal is then transmitted through separate paths to three separate detector devices	Page 34 line 35 to page 35 line 1.	This base band signal is then transferred through separate paths to three separate	
	Column 8 lines 58-59.	Control signals can be passed to the apparatus by means of the programing	Page 59 lines 29-33.	A SPAM message is the modality whereby the original transmission station that originates	
		uansinissions		said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially	
	Column 11 Tines 38-39.	By comparing identification signals on the incoming programing	Page 327 line 35 to page 328 line 13.	transmitted SPAM messages. Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information received from code.	
. •				source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to	<del></del> -
				Indux switch, 73.  By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input 74.	<del></del>
				and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of	<del></del>
	-			Fig. 6 should transmit the programming of each received program unit.	
				SPAM signals are generated at original	$\neg$

Support to instant specification.	Language	transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,  Meter-monitor segments contain meter information and/or monitor information.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be	retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.  The present invention employs signals	embedded in programming.  causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30,
Sur	Reference	Page 84 lines 26-28.	Page 28 lines 26-27. Page 49 lines 26-27.	Page 328 line 22 to page 329 line 1.	Page 13 lines 25-26.	Page 290 lines 26-31.
application filed November 3, 1981.	Language			if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	These techniques employ signals	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.
Support to parent appl	Reference			Column 11 lines 50-57	Column 4 lines 5-6.	Column 8 lines 58-60.
1	Claim Language			to control communication of said at least one instruct signal		

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Support to instant specification.	Language	transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
dnS	Reference		Page 59 lines 29-31.	Page 327 line 35 to page 328 line 13.
application filed November 3, 1981.	Language			By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.  Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.
Support to parent appli	Reference			Column 11 lines 38-46.
Claim Language				in response to said at least one control signal, and

SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	Computer, 73, has means for communicating SWIT 280, Appendix A, Puge 117 of 183
Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 lines 14-16.
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n with matrix switch, s., 76 and 78,  outer, 73, receives a g at contains given "procode" information and information of said distribution amplifier ssage causes compute	with matrix switch, 75, 76 and 78, ter, 73, receives a given contains given "program de" information of said stribution amplifier, 63. age causes computer, 73, adetermined fashion, that ion matches particular dule information of scheduled to be	with matrix switch, 75, 76 and 78, ter, 73, receives a given contains given "program de" information and the information of said istribution amplifier, 63. age causes computer, 73, age causes computer, 73, age tricular ion matches particular dule information of scheduled to be iately upon receipt to tem, 93, via cable channel preprogrammed fashion, s computer, 73, to cause configure its switches so	with matrix switch, 75, 76 and 78, ter, 73, receives a given contains given "program de" information of said istribution amplifier, 63. age causes computer, 73, adetermined fashion, that ion matches particular dule information of scheduled to be iately upon receipt to tem, 93, via cable channel preprogrammed fashion, is computer, 73, to cause configure its switches so gramming transmission tion amplifier, 63) to on TV receiver, 53, to switch, 75, that outputs	with matrix switch, 75, 76 and 78, 16 and 78, 18. 18. 19. 19. 19. 19. 19. 19. 19. 19. 19. 19	with matrix switch, 75, 76 and 78,  ter, 73, receives a given contains given "program de" information and the aformation of said istribution amplifier, 63. age causes computer, 73, edetermined fashion, that ion matches particular caule information of scheduled to be iately upon receipt to eastly upon receipt to eastly upon receipt to eastly upon receipt to scheduled to be cable channel is preprogrammed fashion, is computer, 73, to cause configure its switches so gramming transmission tion amplifier, 63) to om TV receiver, 53, to switch, 75, that outputs nemploys signals mining.  or, 6, then to cause 3, to select information reable control channel be cable channel 13) tel cable system 1 to signal processor, 200, cted to TV signal	with matrix switch, 75, 76 and 78,  ter, 73, receives a given contains given "program de" information of said stribution ampliffer, 63.  age causes computer, 73, edetermined fashion, that ion matches particular daule information of schedule information of schedule information of schedule information of scheduled to be iately upon receipt to tem, 93, via cable channel i preprogrammed fashion, is computer, 73, to cause configure its switches so gramming transmission tron amplifier, 63) to om TV receiver, 53, to switch, 75, that outputs nemploys signals naming.  To select information of switch, 75, that outputs it o select information reable control channel 13) tel cable channel 13) tel cable system 1 to signal processor, 200, ceted to TV signal it o signal processor, 30, (to information of said message,
control information with matrix switch, 75, and video recorders, 76 and 78, For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73,	control information with matrix switch, 75, and video recorders, 76 and 78.  For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be	control information with matrix switch, 75, and video recorders, 76 and 78, For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so	control information with matrix switch, 75, and video recorders, 76 and 78, For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channe modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator. 87	control information with matrix switch and video recorders, 76 and 78, For example, computer, 73, receives a SPAM message that contains given "punit identification code" information a added source mark information of said message identifies distribution ampliff Receiving said message causes comput to determine, in a predetermined fashic said "code" information matches partic preprogrammed schedule information programming that is scheduled to be retransmitted immediately upon receip field distribution system, 93, via cable modulator, 87. In its preprogrammed tasswit as to transfer the programming transming that switch, 75, to configure its swit as to transfer the programming transminguitted (via distribution amplifier, 63 matrix switch, 75, from TV receiver, 5 that output of matrix switch, 75, that of to modulator, 87.  The present invention employs signals embedded in programming.	control information with matrix switch, 75, and video recorders, 76 and 78,  For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that outputs of matrix switch, 75, that outputs to modulator, 87.  The present invention employs signals embedded in programming.  causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	control information with matrix switch, 75, and video recorders, 76 and 78  For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information amplifier, 63.  Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that outputs of matrix switch, 75, from TV receiver, 53, to that outputs of matrix switch, 75, that outputs to modulator, 87.  The present invention employs signals embedded in programming.  causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;  In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
o	01:	01:	01			
Page 328 line 22 to page 329 line 1.	age 328 line 22 to	age 328 line 22 to	age 328 line 22 to	Page 328 line 22 to page 329 line 1.	Page 328 line 22 to page 329 line 1.  Page 13 lines 25-26.  Page 290 lines 26-31.	Page 328 line 22 to page 329 line 1.  Page 13 lines 25-26.  Page 290 lines 26-31.
. ຕົ						
that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix	ng via receiver, mmediately to the 1, 93, via cable instructs matrix its switches so a ramissions input that o the output that	ng via receiver, mmediately to the 1, 93, via cable instructs matrix its switches so a ramissions input to the output that	ng via receiver, annediately to the 1, 93, via cable instructs matrix its switches so a samissions input to the output that	ng via receiver, nunediately to the 1, 93, via cable instructs matrix its switches so a nsmissions input to the output that of the output that oy signals	ng via receiver; nunediately to the 1, 93, via cable 2, instructs matrix its switches so a nsmissions input o the output that o the output that or signals y signals he programing witch, 1, and mix	ng via receiver; mmediately to the 1, 93, via cable 1, instructs matrix its switches so a asmissions input o the output that assed to the he programing witch, 1, and mix
should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix	should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	transmitted imme tribution system, 95 modulator, 87, 27/computer, 73, ins 75, to configure its programing transm receiver, 53, to the modulator, 87.	transmitted imme tribution system, 95 modulator, 87, 27/computer, 73, ins 75, to configure its programing transm receiver, 53, to the modulator, 87.	should be transmitted immediatel field distribution system, 93, via channel modulator, 87, controller/computer, 73, instructs switch, 75, to configure its switch transfer programing transmission from TV receiver, 53, to the outpleads to modulator, 87.  These techniques employ signals embedded in programs.	should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals embedded in programs.  Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	tribution system, 95 modulator, 87, ar/computer, 73, ins 75, to configure its programing transm receiver, 53, to the modulator, 87.  chniques employ si ed in programs. signals can be passe s by means of the psions input at switce
channel mo	channel me controller/c switch, 75, transfer pre from TV re leads to me	channel me controller/c switch, 75, transfer pre from TV re leads to me	channel me controller/s switch, 75, transfer pre from TV re leads to me	channel me controller/c switch, 75, transfer pre from TV re leads to me leads to me These techn embedded	channel me controller/c switch, 75, transfer profrom TV re leads to me leads to me embedded. Control sig apparatus by transmissio.	channel me controller/s switch, 75, transfer pre from TV re leads to me leads to me embedded. Control sig apparatus b transmissio.
				Column 4 lines 5-6.	Column 4 lines 5-6. Column 8 lines 58-60.	Column 4 lines 5-6. Column 8 lines 58-60.
_	<del></del>				<u> </u>	<u> </u>

# SWIT 280, Appendix A, Puge 118 of 183

		_		_
Support to instant specification.	Language	.88	apparatus at subscriber stations	
IdnS	Reference			
pplication filed November 3, 1981.	Language			
Support to parent applic	Reference			Column 8 lines 58-65
Claim I anonage	29nn9			-

apparatus at subscriber stations.		A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The Information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio,	The second message is of the information as associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor segment of five fields and addresses J. URS microcomputers, 205.	an instruction signal is embedded in the programming transmission, and transmitted.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message, SWIT 280, Appendix A. Page 119 of 183
		Page 59 lines 29-33.	Page 25 lines 34-35.	Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 25 line 34 to page 26 line 1.	Page 290 lines 26-31.	Page 291 lines 21-24.
	·	At this point, an instruction signal is generated in the television studio originating the programing			and [the instruction signal] is transmitted in the programing transmission.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	
	Column 8 lines 58-65 Column 11 lines 38-57 Column 17 lines 39-44	Column 19 lines 60-62.			Column 19 lines 62-63	Column 8 lines 58-60.	
		receiving said at least one instruct signal to be transmitted by said remote intermediate transmitter station and		:	delivering said at least one instruct signal to said origination transmitter,	said at least one instruct signal being effective at said receiver station to	

oort to instant specification.	Language
Suppor	Reference
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Support to parent ap	Reference
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Column 8 lines 62-65. The processor uni, 12, has the capacity to diedrify instruction against transmiss and the original transmiss and dressage controller, 20, over controller,	Claim Language			775		_
Column 8 lines 62-65. The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recoding permanent operating instructions and other information and a programmable random access memory controller (TPRAM controller") that permits revision of operating patterns and interval in accordance with a sufficient of page 249 line 5.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with a mandard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 59 lines 29-31.		Kererence	Language	Keterence	Language	$\neg$
Column 8 lines 62-65. The processor unit, 12, has the capacity to defently instruction signals for controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that programmable random access memory controller ("PRAM controller") that a programmable random access memory controller ("PRAM controller") that page 16 lines 6-10. The controller, 20, is programed to a speciate discussion of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to a specific time inerval in accordance with a predetermined pattern. This pattern may be selected in accordance with the broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 257 line 24 to page 258 line 19.						1
Column 8 lines 62-65. The processor unit, 12, has the capacity to identify instruction signals for controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that page 16 lines 6-10. The controller ("PRAM controller") that page 16 lines 6-10. The controller ("PRAM controller") that permits reviews.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 257 line 24 to page 258 line 19.				Page 59 lines 29-31.	A SPAM message is the modality whereby the	
Column 8 lines 62-65. The processor unit, 12, has the capacity to identify instruction signals for controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20 is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to sequence the local oscillator, 6, to select page 249 line 5.  Page 257 line 24 to page 257 line 24 to page 258 line 19.			-	-	original transmission station that originates said message controls specific addressed	
Column 8 lines 62-65. The processor unit, 12, has the capacity to identify instruction signals for controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to select each desired frequency for a specific time interval in accordance with a predetermaned pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to sequence the local oscillator, 6, to select page 249 line 5.  Page 257 line 24 to page 257 line 24 to page 258 line 19.					apparatus at subscriber stations.	
20, and pass them to controller, 20, over control information lines.  Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 258 line 19.		Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction eignals for controller	Page 59 lines 29-31.	A SPAM message is the modality whereby	
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller,") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillation, 6, to select page 248 line 17 to sequence the local oscillation, 6, to select page 249 line 5, each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 258 line 19.			20, and pass them to controller, 20, over		originates said message controls specific	_
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to page 248 line 17 to sequence the local oscillator, 6, to select page 249 line 5. each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 249 line 5.			control information lines.		addressed apparatus at subscriber stations.	
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 257 line 24 to page 257 line 19.				For example, page 531	Said contained messages that are addressed to	
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to page 249 line 5.  Rage 257 line 24 to page 257 line 24 to page 257 line 19.				lines 17-22.	apparatus such as decoder, 30, PRAM	_
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to sequence interval in accordance with a percent of the page 249 line 5.  Page 249 line 5.  Page 249 line 5.  Page 249 line 5.  Page 257 line 24 to page 257 line 24 to page 258 line 19.					controller, 20, and switch controller, 20A, that exist within the equipment case of a signal	
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 258 line 19.					processor, 200, are inputted to said apparatus	
Column 5 lines 16-20. [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select sequence the local oscillator, 6, to select inserval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 257 line 24 to page 258 line 19.		1			from controller, 12, via controller, 20, rather	
for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 257 line 24 to page 258 line 19.	nerform one of the	Column 5 lines 16-20	(The annaratus) has a read only memory	Page 16 lines 6-10	than Via matrix Switch, 259 [The amaratus] has a read only memory for	$\top$
programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  Column 9 lines 47-52. The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to page 249 line 5.  Page 248 line 17 to page 249 line 5.  Page 248 line 17 to page 257 line 24 to page 257 line 24 to	group consisting of:		for recording permanent operating		recording permanent operating instructions	
programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to page 249 line 5.			instructions and other information and a		and other information and a programmable	
permits revision of operating patterns and instructions.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to page 249 line 5.  Page 249 line 5.  Page 249 line 5.  Page 249 line 5.  Page 257 line 24 to page 257 line 24 to page 258 line 19.		•	programmable random access memory		random access memory controller ("PRAM	
instructions.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 248 line 17 to page 249 line 5.			controller ("PKAM controller") that		controller") that permits revision of operating	
The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.  Page 249 line 5.  Page 249 line 5.  Page 249 line 5.  Predective frequency for a specific time interval in accordance with a predection accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.			retinus revision of operating parterns and instructions.		paneins and instructions.	
page 249 line 5.  Page 257 line 24 to page 258 line 19.	-	Column 9 lines 47-52.	The controller, 20, is programed to	Page 248 line 17 to	Signal processor, 200, is preprogrammed	
Page 257 line 24 to page 258 line 19.	-		sequence the local oscillator, 6, to select	page 249 line 5.	with information that identifies each cable and	
Page 257 line 24 to page 258 line 19.			each desired frequency for a specific time		over-the-air (hereinafter, "wireless")	
Page 257 line 24 to page 258 line 19.			interval in accordance with a		transmission or frequency in the locality of the	
Page 257 line 24 to page 258 line 19.			predetermined pattern. This pattern may be selected in accordance with standard		subscriber station of Fig. 5 as Well as the standard broadcast and cablecast practices that	
C C C C C C C C C C C C C C C C C C C			broadcast and cablecast practices known to		apply on said transmissions and frequencies	
0			exist on that transmission line or frequency.		In a predetermined fashion, controller, 20,	
<u> </u>						
3 5 5 8 S <del>3</del>					oscillator, 6, in the pattern: cable channel 2,	
5 5 8 S <del>5</del>					cable channel 4, cable channel 7, cable channel 13 wireless channel 5 wireless	
5 g 05 <del>1</del>					channel 13, wheless channel 3, whereas	
g 9 <del>1</del>					channel 9, wireless channel 13, men to repeat	
- S <del>-</del>					Said paretin.	
				Page 257 line 24 to	Said detection-complete information causes	
				page 258 line 19.	controller, 20, to cause oscillator, 6, to cause	

	Support to parent appli	application filed November 3, 1981	Sinn	Support to instant specification
Claim Language	Reference	Language	Reference	Language
				predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
(a) selecting and receiving a cablecast signal	Column 8 lines 27-29.  Column 9 lines 47-52.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 35 to page 249 line 5.  Page 248 line 17 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.  Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 13, wireless channel 5, wireless channel 13, then to repeat
			Page 257 line 24 to page 258 line 19.	said pattern.  Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically

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Support to instant specification.	Language	oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined fashion that a particular predetermined fashion that as elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40  After determining, in a predetermined fashion, that a particular
Sup	Reference	Page 257 line 24 to page 258 line 19.	Page 265 line 27 to Page 266 line 21.
application filed November 3, 1981.	Language	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.	
Support to parent appli	Reference	Column 9 lines 53-55.	
	Claim Language		

Claim I anguage	Support to parent appl	application filed November 3, 1981.	Supp	Support to instant specification.
Ciumi Canguago	Reference	Language	Reference	Language
-				
	-			predetermined period of time has elapsed from
				the input of said 99.0 MHz frequency to
				decoder, 40, controller, 20, causes
				oscillator, 6, to cause the selection of the next
-		· .		frequency in the predetermined radio
based on one of a	Column 8 lines 62-65	The processor unit 12 has the capacity to	Page 251 lines 3.8	Thereafter the embedded information
presence and absence of		identify instruction signals for controller	1 480 231 11103 3-0:	consider to be accorded to the state of the
a broadcast signal: and		20 and ness them to controller 30 cure		caused to be recorded in the same tashion
a createur rightal, and		20, and pass ulcin to commoner, 20, over		that the embedded information of said
		control information lines.		message is detected and recorded at decoder,
				203, in example #3.
			Page 253 lines 10-11.	Finally, controller, 391, transmits particular
				detection-complete information to controller.
		٠		20;
			Page 253 lines 19-22.	Receiving said detection-complete
	•	~		information causes controller, 20, to cause
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
	Column 8 line 68 to	Buffer/commarator 8 and monitor or	Page 258 lines 10-19	Controller 20 has consein, for booming the land
	column 9 line 4.	processor, 12, each have the capacity to		of elansed time, and after determining in a
		inform controller, 20, when signals that	-	predetermined fashion that a particular
		they look for in predetermined fashions.		predetermined period of time has elansed from
		set by and changeable by controller 20 fail		the input of wireless channel 0 to decoder 30
	•	to appear.		controller 20 automatically causes control
		•		processor 301 to cause all apparatus of
				decoder 30 cease receiving SPAM message
			•	information and delete all information
				received on said wireless channel 9 and causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
(b) selecting and	Column 8 lines 27-29.	The controller, 20, inputs the local	Page 248 line 35 to	In a predetermined fashion, controller, 20,
receiving a broadcast		oscillator, 6, a sequential pattern to select	page 249 line 5.	controls oscillator, 6, to sequence local
signal		the various channels to be received by		oscillator, 6, in the pattern: cable channel 2,
		switch, 1, and mixers, 2 and 3.		cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
	Column 0 1:22 47 60			said pattern.
_	Column 9 lines 47-52.	I ne controller, 20, 1s programed to	Page 248 line 17 to	Signal processor, 200, is preprogrammed

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Samuel Ministry	Support to parent appli	application filed November 3, 1981.	Supp	Support to instant specification.
Ciaiiii Laiiguage	Reference	Language	Reference	. Language
		sequence the local oscillator, 6, to select	page 249 line 5.	with information that identifies each cable and
		each desired frequency for a specific time		over-the-air (hereinafter, "wireless")
·		interval in accordance with a		transmission or frequency in the locality of the
		predetermined pattern. This pattern may be		subscriber station of Fig. 3 as well as the
		selected in accordance with standard		standard broadcast and cablecast practices that
		broadcast and cablecast practices known		apply on said transmissions and frequencies
		to exist on that transmission line or		In a predetermined fashion, controller, 20,
•		trequency.		controls oscillator, 6, to sequence local
				oscillator, 6, in the pattern: cable channel 2,
				cable channel 4, cable channel 7, cable
				channel 13, wireless channel 5, wireless
				channel 9, wireless channel 13, then to repeat
				said pattern.
-			Page 257 line 24 to	Said detection-complete information causes
			page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
			)	the selection of the next channel in the
			•	predetermined television channel selection
				nottem: wireless channel 0 Automatically
				patients, whereas channel 2. Automatically oscillator 6 causes mixer 3 to caled the
				framework of channel 0 and innut out
				frequency of channel 3 and input said
			-	nequency of interest, at a fixed frequency, to decoder 30
•				Controller 20 has canacity for
				keeping track of elapsed time, and after
				determining in a predetermined faction that
				determining in a predetermined fashion that a
				particular predetermined period of time has
			-	decoder 30 controller 20
				oscillator 6 to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
				frequency of channel 9 and input said
•				frequency of interest, at a fixed frequency, to
•				decoder, 30
				Controller, 20, has capacity for keeping

oort to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim I anguage	Claim Language

Claim Failguage				
0	Reference	Language	Reference	Language
		·		track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
			Page 265 line 27 to Page 266 line 21.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40
				After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 100.0 MHz.
based on one of a presence and absence of a cablecast signal;	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 251 lines 3-8.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.  Finally, controller, 39J, transmits particular detection-complete information to controller, 20;
	Column 8 line 68 to column 9 line 4.	Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to	Page 253 lines 19-22.	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 5. Controller, 20, has capacity for keeping track of

	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
		inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
receiving said at least one control signal	Column 19 lines 60-62.	At this point, an instruction signal is generated in the television studio originating the programing	Page 59 lines 29-33.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The Information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.
			Page 25 lines 34-35.	At this point, an instruction signal is generated at said program originating studio,
			Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor segment of five fields and addresses URS microcomputers, 205.
	Column 11 lines 38-39.	By comparing identification signals on the incoming programing	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to SWIT 280, Appendix A, Page 126 of 183

pport to instant specification.	Language
dnS	Reference
Support to parent application filed November 3, 1981.	Reference Language Control
Claim I anguage	Cimini Cangado

				matrix switch 75
				By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or
				network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
			Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions
	-		Page 28 lines 26-27.	monitor information that identifies what programming is available,
	-		Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.
which at said remote intermediate transmitter station operates to control communication of said at least one instruct signal; and	Column 11 lines 38-43.	By comparing identification signals on the incoming programing with the programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.

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port to instant specification.	Language
Sup	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim Lanonage	29,000

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SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain	For example, computer, 73, receives a given SPAM message that contains given "program	unit identification code" information and the added source mark information of said	message identifies distribution amplifier, 63. Receiving said message causes computer. 73.	to determine, in a predetermined fashion, that	preprogrammed schedule information of	programming that is scheduled to be	fed distribution system, 93, via cable channel	modulator, 87. In its preprogrammed fashion,	so determining causes computer, 73, to cause matrix switch 75 to configure its switches so	as to transfer the programming transmission	inputted (via distribution amplifier, 63) to	that output of matrix switch, 75, that outputs	to modulator, 87.	The present invention employs signals	embedded in programming.	causes the oscillator, o, then to cause switch. I, and mixer. 3 to select information	of a particular master cable control channel	(that may or may not be cable channel 13)	from the multi-channel cable system	I transmission inputted to signal processor, 200, and to input said selected to TV signal	decoder, 30;
Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 line 22 to page 329 line 1.													Page 13 lines 25-26.	Dame 200 1: 25 21	rage 290 lilles 20-51.					
			if controller/computer, 73, determines that programing incoming via receiver, 53,	field distribution system, 93, via cable	controller/computer, 73, instructs matrix	switch, 75, to configure its switches so as to transfer programing transmissions imputted	from TV receiver, 53, to the output that	leads to modulator, 87.								These techniques employ signals	Control cianale can be acceed to the	apparatus by means of the programing	transmissions input at switch, 1, and mixer,	2.			
			Column 11 lines 50-57.											-		Column 4 lines 5-6.	Column & lines 58-60						
	tra tra tel tel			Page 84 lines 26-28.  Page 84 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.	Page 84 lines 26-28.  Page 28 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 329 line 1.  should be transmitted immediately to the field distribution system, 93, via cable	Page 84 lines 26-28.  Page 28 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.  Should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix	Page 84 lines 26-28.  Page 28 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.  Page 329 line 1.  Page 51 lines 26-27.  Page 329 line 1.  Should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programine transmissions impurted	Page 84 lines 26-28.  Page 84 lines 26-27.  Page 49 lines 26-27.  Page 328 line 22 to page 328 line 1.  Page 49 lines 26-27.  Page 51 lines 26-27.  Page 52 line 1.  Page 84 lines 26-27.  Page 53 line 1.  Page 54 lines 26-27.  Page 49 lines 26-27.  Page 49 lines 26-27.  Page 52 line 1.  Page 53 line 1.  Page 52 lines 26-27.  Page 49 lines 26-27.  Page 75 line 1.  Page 75 line 1.	Page 84 lines 26-28.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.  Should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 84 lines 26-28.  Page 84 lines 26-27.  Page 49 lines 26-27.  Page 51 lines 26-27.  Page 52 line 1.  Page 52 lines 26-27.  Page 49 lines 26-27.  Page 328 line 1.  Page 328 line 1.  Page 329 line 1.	Page 84 lines 26-28.  Page 49 lines 26-27.  The controller/computer, 73, determines that programing incoming via receiver, 53, page 329 line 1.  Should be transmitted irrmediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 84 lines 26-28.  Page 28 lines 26-27.  Page 49 lines 26-27.  Should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87,  controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 84 lines 26-28.  Page 49 lines 26-27.  Page 49 line 22 to page 328 line 1.  Should be transmited immediately to the field distribution system, 93, via cable channel modulator, 87.  Controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 84 lines 26-28.  Page 49 lines 26-27.  Tontroller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 84 lines 26-28.  Page 84 lines 26-27.  Page 49 lines 26-27.  Page 40 lines 26-27.	Page 84 lines 26-28.  Page 84 lines 26-27.  Page 49 lines 26-27.  Page 40 lines 26-27.	Page 84 lines 26-27.  Page 49 lines 26-27.  Page 328 line 22 to page 329 line 1.  Page 329 line 1.  Page 328 line 22 to to controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals  Page 13 lines 25-26.	Page 84 lines 26-28.  7 if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals embedded in programs.	Page 84 lines 26-28.  Page 49 lines 26-27.  Page 49 lines 26-27.	Page 84 lines 26-28.  Page 49 lines 26-27.  There is to controller/computer, 73, determines about that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals embedded in programs.  Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 1	Page 84 lines 26-28.  T if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87.  controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programming transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals embedded in programs.  Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 84 lines 26-28.  T if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87.  controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programming transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals embedded in programs.  Control signals can be passed to the embedded in programs.  Control signals can be passed to the apparatus by means of the programming transmissions input at switch, 1, and mixer, 2.	Page 84 lines 26-28.  T. if controller/computer, 73, determines that programing incoming via receiver, 53, page 329 line 1.  should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.  These techniques employ signals  Page 13 lines 25-26.  Page 28 lines 26-27.  Page 329 line 1.  Page 329 line 1.  Page 329 line 1.  Page 329 line 2.  Page 329 line 1.  Page 329 line 1.  Page 329 line 2.  Page 32 line 2.  Page 329 line 1.  Page 329 line 2.  Page 329 line 1.  Page 329 line 1.  Page 329 line 1.  Page 329 line 2.  Page 329 line 1.  Page 329 line 1.

# SWIT 280, Appendix A, Page 128 of 183

Support to instant specification.	Language
Support	Reference
t application filed November 3, 1981.	Language
Support to parent	Reference
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	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via
	Page 291 lines 21-24.	Page 59 lines 29-31.	Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11	Page 327 line 35 to page 328 line 13.
			At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.			By comparing identification signals on the incoming programing
			Column 19 lines 60-63.	•		Column 11 lines 38-39.
	·		transmitting said at least one control signal from said origination transmitter			

port to instant specification.	Language
Su	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim Language	0

19. The method of	The method of   Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	The present invention employs sionals
claim 18, further		embedded in programs.	)	embedded in programming
comprising the step of				0
embedding				
a specific one of said at	a specific one of said at   Column 11 lines 38-39.		Page 327 line 35 to	Computer, 73, monitors incoming programming
least one control signal		the incoming programing	page 328 line 13.	by means of the aforementioned dedicated
in one of				decoders of signal processor system, 71. By
				means of the SPAM message information, with
				source mark information, received from code
				reader, 72, computer, 73, determines what
				specific program unit has been received by each
				receiver, 53 through 62, and is passing in line, via
				SWIT 280, Appendix A, Page 130 of 183

port to instant specification.	Language
Sup	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim Language	Crawin Pangango

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Pariburbo	each distribution amplifier, 63 through 70, to matrix switch, 75.  By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
		Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
					Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
					Column 8 lines 58-60.		
					said at least one instruct signal and		

# SWIT 280, Appendix A, Page 131 of 183

port to instant specification.	Language
Sup	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Language	29

Language	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station;	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.		Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.
Reference	Page 325 line 34 to page 326 line 7.	Page 59 lines 29-33	-	Page 327 line 35 to page 328 line 13.
Language	Signal processor, 71, has means, described above; to identify and separate the instruction and information signals from their associated programing and			By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.
Reference	Column 11 lines 3-5.		Column 9 lines 31-33 Column 11 lines 50-57	Column 11 lines 38-43.
0	in an information transmission containing said at least one instruct signal	·		ьебоге

Support to instant specification.	e Language	
 pplication filed November 3, 1981.	Language Reference	
Support to parent a	Reference	
Claim I anmiage	Cianin Language	

Language	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.		A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,	All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205.
Kelerence	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.		Page 59 lines 29-33.	Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 435 lines 16-18.	Page 267 lines 20-28 from example #5.
Language					At this point, an instruction signal is generated in the television studio originating the programing and is transmitted in the programing transmission.			processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to huffer, comparator	14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.
vereience				Column 19 lines 64-65	Column 19 lines 60-63.			Column 19 lines 17-23.	
					transmitting at least a portion of said at least one instruct signal to said remote intermediate transmitter station.	·			

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	dns	Reference	
C	Support to parent application filed November 3, 1981.	Reference Language.	
	Claim Language	, gang	

Support to instant specification	Language	Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Sireet Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13; causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel
Sup	Reference		Page 436 line 9 to page 437 line 3.	Page 439 lines 14-15. Page 290 lines 26-31.
t application filed November 3, 1981.	Language.			Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer,
Support to parent appl	Reference	-		Column 8 lines 58-60.
I might	Ciaim Language	·		

upport to instant specification.	Language
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upplication filed November 3, 1981.	Language
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Claim Language	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.	
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		7.		(that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	
·			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	
·			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed	
	Column 19 lines 23-25.	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X	Page 437 lines 1-6.	apparatus at subscriber stations.  Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-	
				controller, 20. Receiving said please-fully-enable-WSW-on-CC13-at-particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus	
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	
	-		Page 295 lines 6-8.	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	
			Page 439 lines 9-15.	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	
	Column 19 lines 27-29.	and also microcomputer, 205, may	Page 445 line 24 to	instructions causes controller, 20, to switch	т,

Support to instant specification.	Language
	Reference
application filed November 3, 1981.	Language
Support to parent	Reference
Claim Lanonage	29,9

power on to monitor, 202M, and commence transferring the television output transmission of microcomputer, 205, to said monitor, 202M; Automatically, controller, 20, inputs a particular instruction to decoder, 145, via said communications link, that causes decoder, 145, to switch power on to monitor, 202M, and to tune monitor, 202M, in a predetermined fashion.	In so doing, controller, 20, causes monitor, 202M, to receive the decrypted video and audio information of the "Wall Street Week" program, to display the video image of said information, and to emit sound in accordance with said audio.
page 446 line 1.	Page 446 lines 17-21.
instruct switch, 216, to turn TV set, 202, on and tuner, 215, to tune appropriately to "Wall Street Week."	
	•

Such input information can indicate when and how the station should expect to receive each program unit, when and on which channel or channels and how the station should transmit the unit.	Such input information can include the complete programming schedule of the station of Fig. 6	witch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
Page 326 line 33 to Suchage 327 line 2. progression progression between page 327 line 2. progression between progression progr	Page 326 lines 30-31. Sucl	Page 290 lines 26-31 c swit of a (that from trans and decc	Page 291 lines 21-24. In the trans sign sign which to do
Such input information might also indicate when and on which channel or channels the head end facility should transmit each program unit to cable field distribution system, 93.	information might include the sion system's complete schedule,	ssed to the programing tch, 1, and mixer,	Page
Column 11 lines 28-31.	Column 11 lines 21-22.	Column 8 lines 58-60.	
20. The method of claim 18, wherein said specific time is a	scheduled time of transmitting one of	said at least one instruct signal	

Cloim I am	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
Claim Language	Reference	Language	Reference	Language
	-			
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
		,	For example, page 531 lines 17-22.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259
and information associated with said at least one instruct signal	Column 4 lines 5-6.	These techniques employ signals embedded in programs.	Page 13 lines 25-26.	The present invention employs signals embedded in programming.
from said remote intermediate transmitter station.	Column 12 lines 45-47.	Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,	Page 337 lines 1-8.	Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to signal processor, 96,
	Column 11 lines 22-24 Column 11 lines 38-44			
	Column 11 lines 28-31.	Such input information might also indicate when and on which channel or channels the head end facility should transmit each program unit to cable field distribution system, 93.	Page 326 line 33 to page 327 line 2.	Such input information can indicate when and how the station should expect to receive each program unit, when and on which channel or channels and how the station should transmit the unit,

A SPAM message is the modality whereby the	original transmission station that originates	
Page 59 lines 29-33.		
At this point, an instruction signal is	generated in the television studio	
Column 19 lines 60-63.		
21. A method of	controlling at least	

port to instant specification.	Language
Sur	Reference
upplication filed November 3, 1981.	Language
Support to parent a	Reference
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					$\overline{}$
	said message controls specific addressed apparatus at subscriber stations. The information of any given SPAM transmission consists of a series or stream of sequentially transmitted SPAM messages.	At this point, an instruction signal is generated at said program originating studio, embedded in the programming transmission, and transmitted.	The second message is of the information associated with the second combining synch command. Said second command has a "00" header, an execution segment, and a metermonitor	Fig. 7 exemplifies one embodiment of an ultimate receiver station; is a subscriber station in the field distribution system, 93, of the intermediate transmission station of Fig. 6; and may be a home, an office, a theater, a hotel, or any other station where programming such as television or radio is displayed to persons.  Features, benefits, and modes of operation of the station of Fig. 7 are demonstrated in the following individual examples.  Each one of said decoders is preprogrammed to detect and transfer to said onboard controller, 14, via said bus means, the meter-monitor information of every unencrypted SPAM message in the transmission to which its associated apparatus is tuned.	Commands often contain meter-monitor
•3		Page 25 line 34 to page 26 line 1.	Page 90 lines 4-7. Applicants teach this as the composition of the instruction signal of page 25 line 34. See page 26 lines 1-4 and 20-28, page 89 lines 3-6, and page 90 lines 4-11.	Page 390 lines 30-35.  Page 396 lines 8-10.  Page 315 lines 20-24.	Page 44 lines 26-32.
	originating the programing and is transmitted in the programing transmission.			FIG 6 illustrates one possible configuration of equipment in a home or office or other television and/or radio receiving site. Consideration of FIGS.  6F and 6G is facilitated by consideration, first, of individual examples of the types of co-ordinated presentations that the signal apparatus and methods described here can permit.  The signals for which the decoders are monitoring are likely to be unique digital codes that may identify each programing or data unit received and the source of each. They may identify networks, broadcast stations, channels on cable systems, and possibly times of transmission.	
				Column 15 lines 57-62.	
	,		·	said at least one receiver station, said at least one receiver station in a network having a plurality of receiver stations, said at least one receiver station	

# SWIT 280, Appendix A, Page 138 of 183

			T	1
segments. Said segments contain meter information and/or monitor information, and the information of said segments causes subscriber station signal processor systems to assemble, record, and transmit meter records to remote billing stations and monitor records to remote ratings stations in fashions that are described more fully below.	Meter-monitor segments contain meter information and/or monitor information. Examples of categories of such information include:  unique codes for programming; and unique codes that identify the sources and suppliers of computer data.  origins of transmissions (eg., network source stations, broadcast stations, cable head end stations); dates and times	monitor information that identifies what programming is available,	Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to signal processor, 96,	Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio programming and a broadcast television input The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast
	Page 49 line 26 to Page 50 line 4.	Page 28 lines 26-27.	Page 337 lines 1-8.	Page 29 lines 4-15.
			Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,	A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast
	·	•	Column 12 lines 45-47.	Column 6 lines 23-30.
·				including one of a broadcast and a cablecast signal receiver,

# SWIT 280, Appendix A, Page 139 of 183

Claim Language	Support to parent appli	cation filed		Support to instant specification.	П
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					1
		television transmissions available to a local		television transmissions available to a local	
		television antenna of conventional design.		television antenna of conventional design.	7
at least one processor,	Column 19 lines 63-64.	This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.	Page 26 lines 1-2.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	
		-	Page 37 line 26 to page 38 line 8.	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the	
				relevant detector or detectors, 34, 37, 38, 43,	
		٠		and 40. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is	
				preprogrammed to identify in a predetermined fashion or fashions subscriber	
				station apparatus to which said signal	
				information should be transferred; and to transfer said signals to said annarans	
a signal detector, said	Column 6 lines 48-50.	This base band signal is then transmitted	Page 34 line 35 to page	This base band signal is then transferred	$\top$
signal detector		through separate paths to three separate detector devices.	35 line 1.	through separate paths to three separate detector devices.	
adapted to receive		See Fig. 1		See Fig. 2	Τ.
signals from said one of					_
cablecast signal					
receiver, and said	•				
processor programmed	Column 8 lines 20-25.	The signal processor apparatus also has a	Page 33 lines 7-12.	Signal processor, 26, has a controller device	Τ
to		controller device which includes		which includes programmable RAM	
		programable random access memory		controller, 20, ROM, 21, that may contain	
		may contain a unique digital code capable		unique digital code information capable of identifying signal processor. 26, and the	
		of identifying the signal processing		subscriber station of said processor, 26,	
		apparatus uniquely, an automatic dialing device 24 and a telenhone unit 72		uniquely; an automatic dialing device 24; and	
respond to signals from	Column 7 lines 50-58.	Processor or monitor, 12, analyzes, in a	Page 31 lines 10-18.	Controller, 12, receives the signals inputted	$\top$
said detector, said		pre-determined fashion, the signal words		from buffer/comparator, 8, and decryptor, 10;	
memod comprising me steps of:		and units that it receives and determines whether they are to be passed to external		analyzes said signals in a predetermined fashion; and determines whether they are to be	
		equipment or to buffer/comparator, 14, for		transferred to external equipment or to	`
		further processing or both. If a signal or		buffer/comparator, 14, or both. If a signal or	
		signals are to be passed externally,		signals are to be transferred externally, in a	
		determined fashion, the external equipment		dentifies the external apparatus to which the	
		to which the signal or signals are		signal or signals are addressed and transfers	

port to instant specification.	Language
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application filed November 3, 1981.	Language
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		addressed and passes them to appropriate		them to the appropriate port or ports for	- [
		Jack ports for external transmission.		external transmission.	
receiving at one of a	Column 10 lines 30-39.	The facility receives programing from	Page 324 lines 23-31.	The station receives programming from many	_
broadcast and a		many sources. Transmissions may be		sources. Transmissions are received from a	
cablecast transmitter		received from satellites by satellite antenna,		satellite by satellite antenna, 50, low noise	
station		50, low noise amplifiers, 51 and 52, and		amplifiers, 51 and 52, and TV receivers, 53,	
		TV receivers, 53, 54, 55, and 56.		54, 55, and 56. Microwave transmissions are	
		Microwave transmissions can be received		received by microwave antenna, 57, and	
		by microwave antenna, 57, and television		television video and audio receivers, 58 and	
		video and audio receivers, 58 and 59.		59. Conventional TV broadcast transmissions	S
		Conventional TV broadcast transmissions	•	are received by antenna, 60, and TV	
		can be received by antenna, 60, and TV		demodulator, 61. Other electronic	
		demodulator, 61. Other electronic		programming transmissions are received by	
-		programming input means, 62, can receive		other programming input means, 62.	
		programming transmissions.			
	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	The present invention employs signals	
		embedded in programs.		embedded in programming.	
an instruct signal which	Column 8 lines 58-60.	Control signals can be passed to the	Page 290 lines 26-31.	causes the oscillator, 6, then to cause	
is effective at said at		apparatus by means of the programing		switch, 1, and mixer, 3, to select information	
least one receiver	-	transmissions input at switch, 1, and mixer,		of a particular master cable control channel	
station to perform one		2.		(that may or may not be cable channel 13)	
of the group consisting	-			from the multi-channel cable system	
				transmission inputted to signal processor, 200,	_^ `
*				and to input said selected to 1 V signal decoder 30.	
				()	
			Page 291 lines 21-24.	In the fashions described above, so	
				transmitting said SPAM message causes	
				signal processor, 200, at decoder, 30, (to	
				which said master control channel is inputted),	<u>,                                    </u>
				to detect the information of said message,	
			Page 59 lines 29-31.	A SPAM message is the modality whereby the	9.2
			1	original transmission station that originates	
				said message controls specific addressed	
				apparatus at subscriber stations.	
	Column 5 lines 16-20.	[The apparatus] has a read only memory	Page 16 lines 6-10.	[The apparatus] has a read only memory for	
		Ior recording permanent operating		recording permanent operating instructions	
		nistractions and other information and a		and other information and a programmable	
		controller ("PRAM controller") that		controller") that nermits revision of operation	
		permits revision of operating patterns and		commence of instructions	_
-	_	num curround grunnindo to moresto comunidad			- (

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ent application filed November 3, 1981.	Language
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Claim Language	20110

Claim Language	Support to parent	Support to parent application filed November 3, 1981.	Supp	Support to instant specification.
99	Reference	Language	Reference	Language
	Column 9 lines 47-52.	instructions.  The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 17 to page 249 line 5.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 13, then to repeat said pattern.
			Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
(a) selecting and receiving a cablecast signal	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless
	Column 9 lines 47-52.	The controller, 20, is programed to	Page 248 line 17 to	Signal processor, 200, is preprogrammed SWIT 280, Appendix A, Page 142 of 183

Support to parent application Reference	
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Claim Language	Support to parent Reference	Support to parent application filed November 3, 1981. Reference Language	Supp Reference	Support to instant specification. Language	$\overline{}$
		sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	page 249 line 5.	with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 13, wireless channel 7, cable channel 13, wireless channel 13, then to repeat said pattern.	
			Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30 Controller, 20, has capacity for bearing track of along dime and offer	
	Column 9 lines 53-55.	The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.	Page 257 line 24 to page 258 line 19.	determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13. Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to	
				Controller, 20, has capacity for keeping	$\overline{}$

Torioto I original	Support to parent app	application filed November 3, 1981.	Supi	Support to instant specification.
Ciaiiii Laiiguage	Reference	Language	Reference	Language
				track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.
			Page 265 line 27 to Page 266 line 21.	Said radio-detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency selection pattern: 99.0 MHz. Automatically oscillator, 6, causes mixer, 2, to select said frequency and input it, at a fixed frequency, to decoder, 40
				After determining, in a predetermined fashion, that a particular predetermined period of time has elapsed from the input of said 99.0 MHz frequency to decoder, 40, controller, 20, causes oscillator, 6, to cause the selection of the next frequency in the predetermined radio frequency calegical systems. 100 0 MHz
based on one of a presence and absence of a broadcast signal; and	Column 8 lines 62-65.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	Page 251 lines 3-8.	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.
	•		Page 253 lines 10-11.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;

oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 5. Controller, 20, has capacity for keeping track of elapsed time, and after determining in a

Page 258 lines 10-19.

Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to

Column 8 line 68 to column 9 line 4.

Receiving said detection-complete information causes controller, 20, to cause

Page 253 lines 19-22.

Claim Language		3	2	Soft to distant specification.
Sumili traingrafe	Reference	Language	Reference	Language
		inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.		predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 39J, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13
(b) selecting and receiving a broadcast signal	Column 8 lines 27-29.	The controller, 20, inputs the local oscillator, 6, a sequential pattern to select the various channels to be received by switch, 1, and mixers, 2 and 3.	Page 248 line 35 to page 249 line 5.	In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat
	Column 9 lines 47-52.	The controller, 20, is programed to sequence the local oscillator, 6, to select each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.	Page 248 line 17 to page 249 line 5.	Signal processor, 200, is preprogrammed with information that identifies each cable and over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 9, wireless channel 13, then to repeat said pattern.
			Page 257 line 24 to page 258 line 19.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to

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	Support to parent appl	t application filed November 3, 1981.	Sum	Support to instant specification
Claim Language	Reference	Language	Reference	Language
	-			
				Controller, 20, has capacity for
				keeping track of elapsed time, and after
				determining in a predetermined fashion that a
				particular predetermined period of time has
				elapsed from the input of wireless channel 9 to
				decoder, 30, controller, 20, causes
				oscillator, 6, to cause the selection of the next
				channel in the predetermined television
				channel selection pattern: wireless channel 13.
	Column 9 lines 53-55.	The local oscillator, being thus sequenced,	Page 257 line 24 to	Said detection-complete information causes
		will allow each signal decoder, 30 and 40,	page 258 line 19.	controller, 20, to cause oscillator, 6, to cause
		to receive a particular frequency at a		the selection of the next channel in the
		particular time interval.		predetermined television channel selection
				pattern: wireless channel 9. Automatically
				oscillator, 6, causes mixer, 3, to select the
	-			frequency of channel 9 and input said
				frequency of interest, at a fixed frequency, to
				decoder, 30
				Controller, 20, has capacity for keeping
				track of elapsed time, and after determining in
				a predetermined fashion that a particular
				predetermined period of time has elapsed from
				the input of wireless channel 9 to decoder, 30.
				controller, 20, causes oscillator, 6, to cause
				the selection of the next channel in the
				predetermined television channel selection
				pattern: wireless channel 13.
			Page 265 line 27 to	Said radio-detection-complete information
			Page 266 line 21	Causes controller 20 to cause assured
	-		1 abc 200 mmc 21:	to cause the selection of the next frequency in
				the amodate mined and in the most including in
				me predefining diagnostically selection
				6 causes mixer 2 to select said framency
		-		and input it at a fixed frequency to decoder
				and input it, at a model inequality, to decode;
				After determining in a

	$\overline{}$		T			T	
Support to instant specification.	Language	frequency in the predetermined radio	Thereafter, the embedded information is caused to be recorded in the same fashion that the embedded information of said message is detected and recorded at decoder, 203, in example #3.	Finally, controller, 39J, transmits particular detection-complete information to controller, 20;	Receiving said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern; wireless channel 5	Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, automatically causes control processor, 394, to cause all apparatus of decoder, 30, cease receiving SPAM message information and delete all information received on said wireless channel 9 and causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Each receiver/modulator/input apparatus, 53 through 62, transfers its received transmissions into the station by hard-wire, a conventional matrix switch, 75, well known in
	Reference		Page 251 lines 3-8.	Page 253 lines 10-11.	Page 253 lines 19-22.	Page 258 lines 10-19.	Page 324 line 31 to page 325 line 4.
ication filed N	Language		The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			Buffer/comparator, 8, and monitor or processor, 12, each have the capacity to inform controller, 20, when signals that they look for in predetermined fashions, set by and changeable by controller, 20, fail to appear.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video
Support to parent appl	Keierence		Column 8 lines 62-65.			column 9 line 4.	Column 10 lines 40-4 /.
Claim Language			based on one of a presence and absence of a cablecast signal;			trancforring cond	uansierring said instruct signal to a transmitter;

The station receives programming from many SWIT 280, Appendix A, Page 147 of 183

field distribution system, 93, which apparatus includes cable channel modulators, 83, 87,

and 91, and channel combining and

multiplexing system, 92.

Page 324 lines 23-31.

receiving at least one | Column 10 lines 30-39. | The facility receives programing from

multiplexing system, 92.

distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and

equipment that outputs them over various

channels to the cable system's field

recorder/players, 76 and 78, and/or to

the art, one or more recorder/players, 76 and 78, apparatus that outputs said transmissions over various channels to the cable system's

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sources. Transmissions are received from a satellite by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56. Microwave transmissions are received by microwave antenna, 57, and television video and audio receivers, 58 and 59. Conventional TV broadcast transmissions are received by antenna, 60, and TV demodulator, 61. Other electronic programming transmissions are received by other programming input means, 62.  The present invention employs signals embedded in programming.	The frequencies may convey television, radio, or other programming transmissionsThe scanners/switches, working in parallel or series or combinations, transfer the transmissions to receiver/decoder/detectors that identify signals encoded in programming transmissions and convert the encoded signals to digital information;  identifies the particular apparatus to which said signals are addressed, and outputs said signals to said apparatus  A command is an instance of signal information that is addressed to particular subscriber station apparatus and that  Receiving the header and execution segment of said first message causes controller, 39, to determine that said message is addressed to URS microcomputers, 205, and to transfer said message to microcomputer, 205.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
Page 13 lines 25-26.	Page 15 lines 16-23.  Page 34 lines 24-26.  Page 44 lines 14-15.  Page 95 lines 18-21.	Page 59 lines 29-31.
many sources. Transmissions may be received from satellites by satellite antenna, 50, low noise amplifiers, 51 and 52, and TV receivers, 53, 54, 55, and 56.  Microwave transmissions can be received by microwave antenna, 57, and television video and audio receivers, 58 and 59.  Conventional TV broadcast transmissions can be received by antenna, 60, and TV demodulator, 61. Other electronic programing input means, 62, can receive programing transmissions.  These techniques employ signals embedded in programs.	Signal processor apparatus have the ability to identify instruction and information signals in one or more inputted television and radio programing transmissions, identify and discriminate among one or more pieces of external equipment to which such signals are addressed, and transfer such signals to such equipment as directed.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.
Column 4 lines 5-6.	Column 17 lines 39- 44.	Column 8 lines 62-65.
control signal at said one of a broadcast and a cablecast transmitter station, said at one least	control signal designating said at least one receiver station of said plurality of receiver stations in which said instruct signal is addressed; and	·

port to instant specification.	Language
Sup	Reference
Support to parent application filed November 3, 1981.	Reference Language
Claim I anguage	Ciaim Lainguage

e, page 531 Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch 259	Q		s, page 531 Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	
For example, page 531 lines 17-22.	All of these received transmissions feed into the facility by hard-wire and connect, by means of conventional switches (here matrix switch, 75), to one or more video recorder/players, 76 and 78, and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel combining and multiplexing system, 92.	The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.	For example, page 531 lines 17-22.	The signal processing apparatus outlined in Page 324 lines 8-17. FIGS. 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.
	Column 10 lines 40-47.	Column 8 lines 62-65.		Column 10 lines 15-20.
	transferring said at least one control signal to said transmitter, said one of a broadcast and a cablecast transmitter station one of			broadcasting and cablecasting said

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programming transmission to cable systems that cablecast many channels simultaneously.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.  2. Switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	Page 291 lines 21-24. In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	Page 59 lines 29-31.  A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	processor unit, 12, has the capacity to fifty instruction signals for controller, and pass them to controller, 20, over rol information lines.	For example, page 531 Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal
	Column 8 lines 58-60.			Column 8 lines 62-65. The iden iden cont	
	instruct signal and said at least one			control signal to said plurality of receiver stations.	

22. The method of Column 4 lines 5-6.	Column 4 lines 5-6.	These techniques employ signals	Page 13 lines 25-26.	The present invention employs signals
claim 21, wherein one		embedded in programs.	)	embedded in programming.
of said instruct signal				
and said at least one	Column 8 lines 58-60.	Control signals can be passed to the	Page 290 lines 26-31.	causes the oscillator, 6, then to cause
control signal is		apparatus by means of the programing		switch, 1, and mixer, 3, to select information
embedded in a		transmissions input at switch, 1, and mixer,		of a particular master cable control channel

port to instant specification.	Language
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Support to parent application filed November 3, 1981.	Reference Language
Claim I angulage	Sungin Tunio

(that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259		Fig. 2 shows one embodiment of a signal processor. Said processor, 26, is configured for simultaneous use with a cablecast input that conveys both television and radio	programming and a broadcast television input.  The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local	television antenna of conventional design. In due course, while scanning sequentially all channels in the fashion of example #5, the
	Page 291 lines 21-24.	Page 59 lines 29-31.	Page 59 lines 29-31.	For example, page 531 lines 17-22.		Page 29 lines 4-15.	See Fig. 7.	Page 435 lines 16-18.
2.			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.			A signal processor apparatus for simultaneous use with a cablecast input that conveys both television and radio programing and a broadcast television	input is shown in Figure 1. As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local	television antenna of conventional design pass all program and channel identifiers on all programing being cablecast on the
			Column 8 lines 62-65.		Column 4 lines 17-22 Column 19 lines 42-44	Column 6 lines 23-30.	See Figs. 6F & G.	Column 19 lines 14-15.
						non-visible portion of one of a television signal, a multichannel broadcast signal, and a	contains video.	

# SWIT 280, Appendix A, Page 151 of 183

Support to instant specification.	Language	apparatus of the signal processor, 200, of the station of Fig. 7 and 7C	Via a conventional multi- channel cable transmission, in a fashion well known in the art, four channels of conventional television programming and two conventional FM radio signals are inputted to a first alternate contact of switch, 1, and to mixer, 2.	Example #5 begins with the embedding and transmitting, at the remote station that originates the "Wall Street Week" broadcast, of the first message of the "Wall Street Week" program	Then, in a predetermined fashion, control processor, 39J, determines that said first command contains subject matter meter-monitor information causing said control processor, 39J, to transmit a message that consists of execution segment information that is addressed to microcomputer, 205, (and that causes microcomputer, 205, to process the information of the meter- monitor segment immediately following said execution segment information as new programming now being transmitted on the channel of the channel mark of said meter-monitor segment information that includes the "program unit identification code" and subject matter information of said first command and the channel mark of cable channel 13 (Said message whose
Supp	Reference		Page 248 lines 22-26 from example #5.	Page 250 lines 13-16 from example #5.	Page 252 lines 15-35 from example #5.
application filed November 3, 1981.	Language	multi-channel system.			
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transmission is caused by receiving said first command enables microcomputer, 205, in a fashion described more fully below, to tune automatically to receive the program that said "program unit identification code" identifies if said program is of interest, ...

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	application filed November 3, 1981.	Language	
	Support to parent a	Reference	
	Olaim I angua	Ciaini Language	

Support to instant specification.	Language	All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program- message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,  All eight of said messages are commands. The 1st- and 3rd-new- program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	Receiving said Select-WSW-Program- Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, The information so inputted is the aforementioned determine-whether- to-select instructions that contain said particular specific-WSW information and said enable-WSW-on-CC13 Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205,
dnS	Reference	Page 267 lines 20-28 from example #5.	Page 435 lines 16-18.  Page 267 lines 20-28  from example #5.	Page 436 line 9 to page 437 line 3.
Support to parent application filed November 3, 1981.	Language		processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all signals that it passes to buffer/comparator, 14. Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.	
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upport to instant specification.	Language
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application filed November 3, 1981.	Language
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contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week"	program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said	program-unit-of-interest information and determines a match with said second instance.	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;
				Page 439 lines 14-15.

At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station, automatically adds, in a predetermined fashion source mark information that identifies said associated distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; and transfers said selected messages, with said source mark information, to code reader, 72.	Code reader, 72, buffers and passes the received SPAM message information, with source mark information, to cable program
Page 326 line 11.	Page 326 lines 16-18.
Signal processor, 71, has means, described above, to identify and separate the instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72  Code reader, 72  Code reader, 73. passes the received signals, with channel identifiers, to cable program controller and computer, 73.	
The method of Column 11.lines 3-14. , wherein said ne control antifies	
claim 21, wherein said at least one control signal identifies	

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				controller and computer, 73.	_
two of said plurality of receiver stations	Column 19 lines 63-64.	This signal is identified by decoder, 203, and transferred via processor, 204, to	Page 26 lines 1-2.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	Γ-
		microcomputer, 205.			
			Page 37 line 26 to page	In each decoder, the controller, 39, 44, or 47,	
			38 line 8.	receives detected digital information from the	_
				and 46. Upon receiving any given instance of	
			-	signal information, controller, 39, 44, or 47, is	_
	-		-	preprogrammed to identify in a	
				predetermined fashion or fashions subscriber	
				station apparatus to which said signal	
		-		transfer said signals to said apparatus.	
asynchronously and	Column 10 lines 15-20.	The signal processing apparatus outlined in	Page 324 lines 8-17.	The signal processing apparatus	Г
each of said two		FIGS. 1, A, 2B, and 2C, and their variants		outlined in Figs. 2, 2A, 2B, 2C, and 2D, and	
receiver stations		as appropriate, can be used to automate the		their variants as appropriate, can be used to	
		operations of an intermediate transmission		automate the operations of intermediate	
		point whether it be a broadcast station		transmission stations that receive and	
		transmitting only a single channel of		retransmit programming. The stations so	
		programing or a cable system cablecasting		automated may transmit any form of	
		many channels.		electronically transmitted programming,	
				including television, radio, print, data, and	
				combined medium programming and may	
				range in scale of operation from wireless	
				broadcast stations that transmit a single	
				programming transmission to cable systems	
	:			that cablecast many channels simultaneously.	_
	Column 17 lines 47-53.	FIG 6 illustrates one possible	Page 390 lines 30-35.	Fig. 7 exemplifies one embodiment of an	
		configuration of equipment in a home or		ultimate receiver station; is a subscriber	
		office or other television and/or radio		station in the field distribution system, 93, of	
		receiving site. Consideration of FIGS.		the intermediate transmission station of Fig. 6;	
		6F and 6G is facilitated by consideration,		and may be a home, an office, a theater, a	
		first, of individual examples of the types		hotel, or any other station where programming	
		of co-ordinated presentations that the		such as television or radio is displayed to	
		signal apparatus and methods described here can permit.		persons.	
			Page 396 lines 8-10.	Features, benefits, and modes of operation of	_
				the station of Fig. 7 are demonstrated in the	
				following individual examples.	Т
receive and respond to said instruct signal	Column 11 lines 3-14.	Signal processor, 71, has means, described above, to identify and separate the	Page 325 line 34 to page 326 line 11.	At signal processor system, 71, which is a system as shown in Fig. 2D, the outputted	
				SWIT 280 Annendix 4 Page 155 of 183	7~

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port to instant specification.	Language
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upplication filed November 3, 1981.	Language
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transmission of each distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70, is inputted into a dedicated decoder (such as decoders, 27, 28, and 29 in Fig. 2D) that processes continuously the inputted transmission of said distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; selects SPAM messages in said transmission that are addresses to ITS apparatus of said intermediate transmission station, automatically adds, in a predetermined fashion source mark information that identifies said associated distribution amplifier, 63, 64, 65, 66, 67, 68, 69, or 70; and transfers said selected messages, with said source mark information, to code reader, 72.	Code reader, 72, buffers and passes the received SPAM message information, with source mark information, to cable program controller and computer, 73.	Said signal is identified by decoder, 203; transferred to microcomputer, 205; and	In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46. Upon receiving any given instance of signal information, controller, 39, 44, or 47, is preprogrammed to identify in a predetermined fashion or fashions subscriber station apparatus to which said signal information should be transferred; and to transfer said signals to said apparatus.	The signal processing apparatus outlined in Figs. 2, 2A, 2B, 2C, and 2D, and their variants as appropriate, can be used to automate the operations of intermediate transmission stations that receive and retransmit programming. The stations so automated may transmit any form of electronically transmitted programming.
	Page 326 lines 16-18.	Page 26 lines 1-2.	Page 37 line 26 to page 38 line 8.	Page 324 lines 8-17.
instruction and information signals from their associated programing and pass them, along with information identifying the channel source of each signal, externally to code reader, 72  Code reader, 72. passes the received signals, with channel identifiers, to cable program controller and computer, 73.		This signal is identified by decoder, 203, and transferred via processor, 204, to microcomputer, 205.		The signal processing apparatus outlined in FIGS: 1, A, 2B, and 2C, and their variants as appropriate, can be used to automate the operations of an intermediate transmission point whether it be a broadcast station transmitting only a single channel of programing or a cable system cablecasting many channels.
		Column 19 lines 63-64.		Column 10 lines 15-20.
				asynchronously.

pport to instant specification.	Language
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Matrix Switch, 75, in Fig. 6A.		TV receiver, 53, in Fig. 6A.			78, in Fig. 6A.	recorder/players, 76 and 78	Recorder and Player, 76, in Fig. 6A.	Cable Channel Modulator, 83, in Fig. 6B.			Computer, 73, monitors incoming	programming by means of the aforementioned	dedicated decoders of signal processor system,	71. By means of the SPAM message	information with source mark information
						Page 324 line 34					Page 327 line 35 to	page 328 line 13.			
Matrix Switch, 75, in Fig. 3B.		TV receiver, 53, in Fig. 3A.			VTR, 78, in Fig. 3B.		Recorder and Player, 76, in Fig. 3B.	Cable Channel Modulator, 83, in Fig. 3C.			By comparing identification signals on the	incoming programing with the programing	schedule received earlier from local input,	74, and/or from a remote site via network,	98, controller/computer, 73, can determine
				,							Column 11 lines 38-46.				
24. The method of claim 21, wherein a	switch communicates said signals selectively	from said one of a	broadcast and a cablecast signal	receiver and	one of a memory		and recorder to	said transmitter, said	comprising one from	the group consisting of:	detecting a signal of	said signals which is	effective at the	transmitter station to	

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determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said
	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 lines 14-16.	Page 328 line 31 to page 329 line 1.	Page 328 lines 22-31.
head end facility should transmit the programing.  Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.					controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution
					Column 11 lines 54-57.	Column 11 lines 50-54.
					instruct communication;	determining a specific signal source from which to communicate a signal

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Support to instant specification.	Language
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00	Reference	Language	Reference	Language	_
of said signals to said transmitter;		system, 93, via cable channel modulator, 87,		message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine that said "code" information matches schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87.	<del></del>
controlling said switch to communicate a first signal of said signals to said transmitter	Column 11 lines 54-57.	controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 31 to page 329 line 1.	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	<del></del>
in response to a second signal of said signals which is effective at the transmitter station to instruct communication;	Column 11 lines 38-46.	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.  Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	<del>, , , , , , , , , , , , , , , , , , , </del>
			Page 84 lines 26-28.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	
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application filed November 3, 1981.	Language
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Claim Language	00

			Page 28 lines 26-27.	monitor information that identifies what programming is available,	г
			Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.	
			Page 328 lines 14-16.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,	
controlling said switch to communicate a signal of said signals from	Column 11 lines 54-57.	controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 31 to page 329 line 1.	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	<del></del>
a selected signal source;	Column 11 lines 50-54.	For example, if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87,	Page 328 lines 22-31.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine that said "code" information matches schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator. 87	<del></del>
controlling said switch to communicate to said one of a memory and recorder a signal of said signals which is effective at the receiver station to instruct.	Column 11 lines 61-64.	in a predetermined fashion, to record the incoming programing, instructs matrix switch, 75, to transfer the programing to the designated recorder/player, 76 or 78,	Page 329 lines 13-20.	in its preprogrammed fashion, to record programming; and to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 67) from television receiver, 58, to the output that leads to said selected recorder, 76 or 78.	

In its preprogrammed fashion, so determining	causes computer, 73, to cause matrix switch,	75, to configure its switches so as to transfer	
Page 328 line 31 to	page 329 line 1.		
controller/computer, 73, instructs matrix   Page 328 line 31 to	switch, 75, to configure its switches so as to page 329 line 1.	transfer programing transmissions inputted	
Column 11 lines 54-57.			
25. The method of	claim 21, wherein a	controller controls a	

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Language	the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	Computer, 73, has means for communicating control information with matrix switch, 75, and video recorders, 76 and 78,
Keterence		Page 327 line 35 to page 328 line 13.	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 328 lines 14-16.
Language	from TV receiver, 53, to the output that leads to modulator, 87.	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the head end facility should transmit the programing.  Controller/computer, 73, has means for communicating control information with matrix switch, 75, and video recorder/players, 76 and 78.				
Neterence		Column 11 lines 38-46.				
,	switch to communicate to said transmitter a selected signal of said signals, further comprising one from the group consisting of:	detecting a signal of said signals which is effective at the transmitter station to				

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Support to instant specification.	Language		For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information, with source mark information, received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the station of Fig. 6
Supp	Reference		Page 328 line 1.	Page 327 line 35 to page 328 line 13.
Support to parent application filed November 3, 1981.	Language		if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	By means of the signals, with channel indicators, received from code reader, 72, controller/computer, 73, can determine what specific programing and programing unit has been received by each receiver, 53 through 62, and is passing in line on each individual wire to matrix switch, 75.  By comparing identification signals on the incoming programing with the programing schedule
Support to parent	Reference	•	Column 11 lines 50-57.	Column 11 lines 32-39.
Claim Language	299		instruct transmission;	inputting to said controller a signal of said signals which is effective to

Claim I anguage	Support to parent	it application filed November 3, 1981.	Suppo	oort to instant specification.
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		-		transmission stations and embedded in television or radio or other programming transmissions
			Page 28 lines 26-27.	monitor information that identifies what programming is available,
			Page 49 lines 26-27.	Meter-monitor segments contain meter information and/or monitor information.
control said switch;	Column 11 lines 50-57.	if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to	Page 328 line 22 to page 329 line 1.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that
		transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.		said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to
				matrix switch, 75, from 1 V receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87:
controlling said switch to communicate at least one signal of said signals	Column 11 lines 54-57.	controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.	Page 328 line 31 to page 329 line 1.	In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission inputted (via distribution amplifier, 63) to matrix switch, 75, from TV receiver, 53, to that output of matrix switch, 75, that outputs to modulator, 87.
according to a transmission schedule;	Column 11 lines 38-43.	By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine	Page 327 line 35 to page 328 line 13.	Computer, 73, monitors incoming programming by means of the aforementioned dedicated decoders of signal processor system, 71. By means of the SPAM message information with source mark information
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received from code reader, 72, computer, 73, determines what specific program unit has been received by each receiver, 53 through 62, and is passing in line, via each distribution amplifier, 63 through 70, to matrix switch, 75. By comparing selected meter-monitor information of said message information with information of the programming schedule received earlier from input, 74, and/or network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	meter information and/or monitor information.	For example, computer, 73, receives a given SPAM message that contains given "program unit identification code" information and the added source mark information of said message identifies distribution amplifier, 63. Receiving said message causes computer, 73, to determine, in a predetermined fashion, that said "code" information matches particular preprogrammed schedule information of programming that is scheduled to be retransmitted immediately upon receipt to field distribution system, 93, via cable channel modulator, 87. In its preprogrammed fashion, so determining causes computer, 73, to cause matrix switch, 75, to configure its switches so as to transfer the programming transmission
	Page 84 lines 26-28.	Page 28 lines 26-27.	rage 49 iiies 20-27.	Page 328 line 1. page 329 line 1.
when and on what channel or channels the head end facility should transmit the programing.				if controller/computer, 73, determines that programing incoming via receiver, 53, should be transmitted immediately to the field distribution system, 93, via cable channel modulator, 87, controller/computer, 73, instructs matrix switch, 75, to configure its switches so as to transfer programing transmissions inputted from TV receiver, 53, to the output that leads to modulator, 87.
·				Column 11 lines 50-57.
				controlling said switch to communicate from a specific one of

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				inputted (via distribution amplifier, 63) to
				matrix switch, 75, from TV receiver, 53, to
_				that output of matrix switch, 75, that outputs
				to modulator, 87.
a plurality of signal	Column 11 lines 50-54.	For example, if controller/computer, 73,	Page 328 lines 22-31.	For example, computer, 73, receives a given
sources; and		determines that programing incoming via		SPAM message that contains given "program
		receiver, 53, should be transmitted		unit identification code" information and the
		immediately to the field distribution		added course mark information of said
		system 93 via cable channel modulator		mossons identifies distribution smallifica.
		of sectify 7.5, The Carolic Chamber Historianol.		incosage identifies distribution amplifier, 03.
		91,		Receiving said message causes computer, 73,
				to determine that said "code" information
				matches schedule information of
				programming that is scheduled to be
				retransmitted immediately upon receipt to
	-			field distribution system, 93, via cable channel
				modulator, 87.
	Column 10 lines 49-52.	When played on video recorder and	Page 325 lines 6-9.	When played on video recorders, 76 and 78,
		players, 76 and 78, or other similar		or other similar equipment well known in the
		equipment well known in the art, such		art, such prerecorded programming can be
		prerecorded programing can be transmitted		transmitted via switch 75 to field distribution
		to the field.	•	system, 93.
controlling said	Column 12 lines 58-64.	The facility could also process and	Page 339 lines 9-26.	So far this disclosure has described an
switch to communicate		transmit radio programing and other		intermediate transmission station that
a signal of said signals		electronic data according to the methods		transmits conventional television
to a selected one of		described here by adding radio decoder		programming; however, the intermediate
	:	paths and other signal decoder paths, as		station automating concepts of the present
		shown in FIGS 2B and 2C respectively.		invention apply to all forms of electronically
		to cional processors 71 and 06, and		transmitted apply to an ioning of circuminally
		to signal processors, 71 and 90, and		transmitted programming. The station of Fig.
		decoders, 11, 19, 80, 84, and 88.		o can process and transmit radio programming
				in the fashions of the above television
-				programming by adding radio transmission
				and audio recorder/player means, each with
				associated radio decoder means as shown in
				Fig. 2B, wherever television means are shown
				in Fig. 6, all with similar control means to that
				shown in Fig. 6 and by processing radio
				programming with appropriately embedded
				signals according to the same processing and
•				transmitting methods described above.
				Likewise, said station can transmit broadcast
				print and data communications programming
	_			by adding appropriate transmission and
				SWIT 280, Appendix A. Page 165 of 183
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recorder/player means and decoder/detector means with control means and using the same processing and transmitting methods instruction signals embedded in the "Wall Street Week" programming transmission.	apparatus that outputs said transmissions over various channels to the cable system's field distribution system, 93, which apparatus includes cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system. 92
Page 21 lines 23-24.	Page 325 lines 1-4.
instruction signals embedded in the "Wall Street Week" programing transmission.	and/or to equipment that outputs them over various channels to the cable system's field distribution system, 93, which equipment includes here cable channel modulators, 83, 87, and 91, and channel combining and multiplexing system, 92.
Column 19 lines 43-44.	Column 10 lines 43-47.
	a plurality of transmitters.

26. The method of	The method of   Column 12 lines 45-47.	Beyond channel combining system and	Page 337 lines 1-8.	Fig. 6 shows particular signal
claim 21, further		multiplexer, 92, amplifier, 94, transmits		processor system monitoring apparatus
comprising one from		programing to signal processor, 71, and		associated with the intermediate station of Fig.
the group consisting of:		signal processor, 96,		6. In field distribution system, 93, amplifier,
transmitting to said at		-		94, inputs programming transmissions to
reast one receiver		,		signal processor system, 71, (where said
station				transmissions are inputted to one alternate
			-	contact of the switch, 1, of the signal
				processor of said system, 71), and amplifier,
				95, inputs programming transmissions to
				signal processor, 96,
data one of that	Column 3 lines 6-8.	Examples of signal words are a string of	Page 14 line 35 to page	Examples of signal words are a string of one
designate one of		one or more digital data bits encoded	15 line 2.	or more digital data bits encoded together on a
		together on a single line of video or		single line of video or sequentially in audio.
		sequentially in audio.		•
a time and a channel of	Column 19 lines 20-23.	Analyzing these identifier signals in a	Page 267 lines 20-28	All eight of said messages are commands.
transmission of said		predetermined fashion, microcomputer,	from example #5.	The 1st- and 3rd-new-program-message (#5)
instruct signal and that		205, determines that "Wall Street Week" is		and the 1st-new-radio-program- message (#5)
		being televised on channel X.		signals are addressed to microcomputer, 205.
	-			Each informs said microcomputer of new
				programming transmissions to which said
				microcomputer can tune appropriate station
				receiver and display apparatus in fashions
				described below. (Hereinafter said commands
				are called "guide commands" because they
				can guide station control apparatus to desired
				programming.)

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Language	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C detects one instance of the Select-WSW-Program-Unit SPAM message of the station of Fig. 6 Receiving said Select-WSW-Program-Unit message causes the apparatus of said signal processor, 200, to input said message to the microcomputer, 205, of said station.	Receiving said Select-WSW-Program-Unit message causes decoder, 203, to input the information segment of said message to the CPU of microcomputer, 205, and to cause said CPU to execute the information so inputted as a machine language job. The information so inputted is the aforementioned determine-whether-to-select instructions that contain said particular specific-WSW information and said particular specific-WSW information and said please-fully-enable-WSW-on-CC13-at-particular-8:30 information.  Executing said determine-whether-to-select instructions causes microcomputer, 205, to Said instructions contain one instance, and program-unit-of-interest information that is preprogrammed at said microcomputer, 205, to Said instructions contain sa second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said strainsmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.  Determining a match causes microcomputer, 205, automatically to input
Kelerence	Page 435 lines 16-25.	Page 436 line 9 to page 437 line 3.
Language		
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Language	-on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;		All eight of said messages are commands. The 1st- and 3rd-new-program-message (#5) and the 1st-new-radio-program-message (#5) signals are addressed to microcomputer, 205. Each informs said microcomputer of new programming transmissions to which said microcomputer can tune appropriate station receiver and display apparatus in fashions described below. (Hereinafter said commands are called "guide commands" because they can guide station control apparatus to desired programming.)	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200, of the station of Fig. 7 and 7C detects one instance of the Select-WSW-Program-Unit SPAM message of the station of Fig. 6 Receiving said Select-WSW-Program-Unit message causes the apparatus of said signal processor, 200, to input said message to the microcomputer, 205, of said station.	Receiving said Select-WSW-Program-Unit message causes decoder, 203, to input the information segment of said message to	the CPU of microcomputer, 203, and to cause said CPU to execute the information so inputted as a machine language job. The information so invutted is the ofcompations.	determine-whether-to-select instructions that	contain said particular specific-WSW information and said
Complete		Page 439 lines 14-15.		Page 267 lines 20-28 from example #5.	Page 435 lines 16-25.	Page 436 line 9 to page 437 line 3.			
66				Analyzing these identifier signals in a predetermined fashion, microcomputer, 205, determines that "Wall Street Week" is being televised on channel X.			·		
			Column 4 lines 5-13 Column 11 lines 50-57 Column 18 lines 53-56	Column 19 lines 20-23.					
				specify one of title of and subject matter contained in one of mass medium programming and data associated with said instruct signal; and	-				

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please-fully-enable-WSW-on-CC13-at-particular-8:30 information.  Executing said determine-whether-to-select instructions causes microcomputer, 205, to  Said instructions contain one instance, and	program-unit-of-interest information that is preprogrammed at said microcomputer, 205, contains a second instance of specific-WSW information, which second instance reflects the wish of the subscriber of said station to view (or record) said "Wall Street Week" program when said program is transmitted. Automatically, microcomputer, 205, compares said one instance to said program-unit-of-interest information and determines a match with said second instance.	microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.	to receive the transmission of cable channel 13;		Fig. 6 shows particular signal processor system monitoring apparatus associated with the intermediate station of Fig. 6. In field distribution system, 93, amplifier, 94, inputs programming transmissions to signal processor system, 71, (where said transmissions are inputted to one alternate contact of the switch, 1, of the signal processor of said system, 71), and amplifier, 95, inputs programming transmissions to
			Page 439 lines 14-15.	·	Page 337 lines 1-8.
					Beyond channel combining system and multiplexer, 92, amplifier, 94, transmits programing to signal processor, 71, and signal processor, 96,
				Column 18 line 66- Column 19 line 4 Column 19 lines 14-15 Column 19 lines 35-41 Column 19 lines 45-49 Column 19 line 67- Column 20 line 1	Column 12 lines 45-47.
					transmitting to said at least one receiver station

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	ipport to instant specification.	Language
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Support to instant specification.	Language		signal processor, 96,	In due course, while scanning sequentially all channels in the fashion of example #5, the apparatus of the signal processor, 200,		All eight of said messages are commands.	I he 1st- and 3rd-new- program-message (#5)	signals are addressed to microcomputer, 205.	Each informs said microcomputer of new	programming transmissions to which said	microcomputer can tune appropriate station	described below. (Hereinafter said commands	are called "guide commands" because they	can guide station control apparatus to desired	programming.)	Receiving said Select-WSW-Program- Unit	message causes decoder, 203, to input	the information segment of said message to	the CPU of microcomputer, 205, The	information so inputted is the aforementioned	determine-whether- to-select instructions that	information and said enable-WSW-on-	CC13	Said instructions contain one instance, and	program-unit-of-interest information that is	preprogrammed at said microcomputer, 205, contains a second instance of specific MSW	information, which second instance reflects	the wish of the subscriber of said station to	view (or record) said "Wall Street Week"	program when said program is transmitted.	Automatically, microcomputer, 205, compares	said one instance to said	program-unit-of-interest information and	determines a match with said second	instance.	Deferming a match causes	incrocomputer, 203, automaticany to input
Sup	Reference			Page 435 lines 16-18.		Page 267 lines 20-28	rrom example #5.									Page 436 line 9 to	page 437 line 3.																				
Support to parent application filed November 3, 1981.	Language			processor or monitor, 12, which reacts, in a predetermined fashion by passing also externally to microcomputer, 205, all	signals that it passes to buffer/ comparator,	14. Analyzing these identifier signals in a	predetermined tasmon, microcomputer, 205 determines that "Wall Street Week" is	being televised on channel X.																													
Support to parent	Reference			Column 19 lines 17-23.													,																				
I wiel	Ciailli Laiiguage			said at least one control signal to cause said at least one receiver	station																																

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said please-fully-enable-WSW -on-CC13-at-particular- 8:30 information to the controller, 20 to receive the transmission of cable channel 13;	Determining a match causes microcomputer, 205, automatically to input said please-fully-enable-WSW-on-CC13-at-particular- 8:30 information to the controller, 20.  Receiving said please-fully-enable-WSW-on-CC13-at- particular-8:30 information causes controller, 20, in a predetermined fashion, to prepare particular apparatus.	to cause selected apparatus of said station-cable converter box, 201, to receive the transmission of cable channel 13;	Then, automatically, controller, 20, causes a selected tuner, 214, to tune to the frequency of cable channel 13, thereby causing its associated converter box, 201, to convert its	to cause selected apparatus of said stationcable converter box, 201, to receive the transmission of cable channel 13;	The inputted information is the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	As the program proceeds, in the same fashion a further instruction signal is generated at said studio; transmitted; detected; inputted from decoder, 203, to microcomputer, 205; and executed as
Page 439 lines 14-15.	Page 437 lines 1-6.	Page 439 lines 9-15.	Page 295 lines 6-8.	Page 439 lines 9-15.	Page 29 lines 11-15.	Page 26 line 33 to page 27 line 9.
	microcomputer, 205, may instruct tuner, 214, to switch box, 201, to channel X				As shown, the input signals are the entire range of frequencies or channels transmitted on the cable and the entire range of broadcast television transmissions available to a local television antenna of conventional design.	When the two studio generated graphics are no longer displayed, the studio stops sending the instruction signal, and the microcomputer, 205, ceases transmitting its own graphic to TV set, 202, and
	Column 19 lines 23-25.				Column 6 lines 26-30.	Column 20 lines 2-7.
	to tune to		·	·	one of a broadcast and cablecast transmission containing said instruct signal.	

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Support to instant specification.	Language	"GRAPHICS OFF." Then said studio ceases transmitting the graphic image, and transmits another image such as the host's talking head. Simultaneously, the GRAPHICS OFF command causes microcomputer, 205, to cease overlaying the graphic information onto the received composite video and to commence transmitting the received composite video transmission unmodified. Thereafter the "Wall Street Week" program proceeds, and microcomputer, 205.	continues to operate under control of received instructions.  Furthermore, it is undesirable to separate computer operations merely because they result in the generation of separate overlays	unnecessary duplication of calculations. For example, the Fig. 1C display of user specific overall stock portfolio performance could be followed by second and third displays that analyze portions of the subscriber's portfolio-eg, the portion invested in New York Stock Exchange listed stocks in	comparison to the so-called "NYSE" index and the portion invested in so-called "over-the-counter" stocks in comparison to the so-called "NASDAQ" index. In order to calculate the value of the overall portfolio, it is necessary to calculate the allue of the overall portfolio, it	portions. To require that the values of the portions be recalculated for subsequent overlays would be inefficient.  In computer-based combined medium communications, the amount of	information that a given system can convey is dependent on the efficiency of the employment of program instruction sets and combining synch commands.
S	Reference		Page 451 line 22 to page 452 line 5.				
Support to parent application filed November 3, 1981.	Language	prepares to send the next locally generated graphic overlay upon instruction from the originating studio.					
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Claim Language	Reference	Language	Reference	Language
27. The method of claim 21, wherein said at least one control signal further comprise downloadable executable code	Column 8 lines 58-60.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	Page 290 lines 26-31.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;
			Page 291 lines 21-24.	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,
			Page 59 lines 29-31.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
·	Column 5 lines 16-20.	(The apparatus) has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	Page 16 lines 6-10.	[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.
	For example Column 19 lines 46-53.	When the "Wall Street Week" transmission begins at 8:30 PM on a Friday evening, several instruction signals are identified by decoder, 203, and transferred to microcomputer, 205. These signals instruct microcomputer, 205, upon command.	For example Page 23 line 35 to page 24 line 16.	Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of
				instructions that follows said word or words just as the information of a file named FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk

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inputs) and run were the command "FILE" entered from the console keyboard to the system level of the installed disk operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")	A command is an instance of signal information that is addressed to particular subscriber station apparatus and that causes said apparatus to perform a particular function or functions. A command is always constituted of at least a	(Hereinafter, an instruction such as the above signal of "GRAPHICS ON" that causes subscriber station apparatus to execute a combining operation in synchronization is called a "combining synch command." Said initial signal word or words that preceded the above program instruction set provide another example of a combining synch command in that said word or words synchronized all subscriber station computers in commencing loading and running information for a particular combining.)	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via matrix switch, 259	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13)  SWIT 280, Appendix A, Page 174 of 183
٠.	Page 44 lines 14-17.	Page 26 lines 20-28.	Page 59 lines 29-31.	For example, page 531 lines 17-22.	Page 290 lines 26-31.
			The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.		Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.
			Column 8 lines 62-65.		Column 8 lines 58-60.
			targeted to said processor of said at least one of said plurality of receiver		said downloadable executable code programming one of a way and

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Support to instant specification.	Language	from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed	apparatus at subscriber stations.  [The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and instructions.	Controller, 20, has capacity for controlling the operation of all elements of the signal processor	Among said preprogrammed instructions is key information of J, and said instructions cause controller, 20, automatically to select and transfer said key information to decryptor, 10.  Decryptor, 10, receives said key information and automatically commences using it as its key for decryption.	Decryptor, 10, commences decrypting Said decrypt-a-00-header-message instructions cause controller, 20, to cause decryptor, 10, to transfer the first H bits without decrypting or altering said bits in any fashion, to decrypt and transfer the next X
	Reference		Page 291 lines 21-24.	Page 59 lines 29-31.	Page 16 lines 6-10.	Page 33 lines 18-20.	For example, page 147 lines 23-28.	For example, page 149 line 27 to page 150 line 6.
Support to parent application filed November 3, 1981.	Language				[The apparatus] has a read only memory for recording permanent operating instructions and other information and a programmable random access memory controller ("PRAM controller") that permits revision of operating patterns and	instructions. [Controller, 20] can tell decrypter, 10, when and how to change decryption patterns, fashions, and techniques.		
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			,	decrypting or altering said bits, to decrypt and transfer the next MMS-L bits, and finally, to transfer any bits remaining after the last of said MMS-L bits without decrypting or altering said bits. In this fashion, the cadence information in said message, which is not encrypted, is transferred by decryptor, 10, to controller, 12, without alteration.	
method	Column 8 lines 40-44.	[Controller, 20] can tell processor or monitor, 12, how to determine which signals to pass externally and when and where and how to determine which signals to pass to buffer/comparator, 14.	Page 33 lines 18-20. Page 149 lines 8-15.	Controller, 20, has capacity for controlling the operation of all elements of the signal processor and  Then said instructions cause controller, 20, to transmit to controller, 12, a particular transfer-decrypted-message instruction and particular decryption mark information of key J that identifies J as the decryption key.  Receiving said instruction and information causes controller, 12, to execute particular preprogrammed transfer- and-meter instructions	<del></del>
			For example, page 150 lines 29-35.	Automatically, controller, 12, executes preprogrammed transfer-to-205-@12 instructions; activates the output port that outputs to SPAM- controller, 205C; then commences transferring information of said decrypted information of the second message under control of said transfer-and-meter instructions commencing with the first of said H bits and transferring information,	
			For example, page 152 line 19 to page 153 line 1.	causes controller, 12, to cease transferring information, under control of said transfer-and-meter instructions, to deactivate all output ports, and to commence executing the meter instructions of said ransfer-and-meter instructions. Said meter instructions cause controller, 12, to transfer to buffer/comparator, 14, particular header identification information that identifies controller, 12, as the source of said transfer	
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the information recorded at said SPAM-meter memory then the information recorded at said decryption-mark-@12 register memory, which information is the decryption mark of key J. (Hereinafter, said meter information generated by the second combining synch command in example #2 is called the "2nd meter information (#2).")	Signal processor, 26, has a controller device which includes programmable RAM controller, 20; ROM, 21, that may contain unique digital code information capable of identifying signal processor, 26, and the subscriber station of said processor, 26, uniquely, an automatic dialing device 24; and a telephone unit, 22 Controller, 20, has capacity for controlling the operation of all elements of the signal processor.	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted), to detect the information of said message,	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.
-	Page 33 lines 7-20.	Page 290 lines 26-31.	Page 291 lines 21-24.	Page 59 lines 29-31.
	The signal processor apparatus also has a controller device which includes programable random access memory controller 20, read only memory 21 that may contain a unique digital code capable of identifying the signal processing apparatus uniquely, an automatic dialing device 24, and a telephone unit, 22. The controller, 20, governs the operation of all operating elements of the apparatus.	Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.		
	Column 8 lines 20-27.	Column 8 lines 58-60		
	in which said processor	responds to said instruct signal.		

Signal processor, 200, is preprogrammed	with information that identifies each cable and	
Page 248 line 17 to	page 249 line 5.	
The controller, 20, is programed to	sequence the local oscillator, 6, to select	
Column 9 lines 47-57.		
28. The method of	claim 21, wherein said	

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	ocality of the las the oractices that equencies urroller, 20, local channel 2, able reless	ation causes 6, to cause a the selection matically elect the aid quency, to keeping fermining in iticular lapsed from lecoder, 30, t, 6, to cause the	on causes 6, to cause 1 the relection natically lect the aid quency, to
Language	fter, "wireless rency in the le Fig. 3 as well and cablecast pussions and fr dissions and fr dission, coi to sequence attern: cable of le channel 7, channel 1, whannel 13, the	nplete inform se oscillator, ext channel is sion channel? sion channel? mnel 9. Autor mixer, 3, to se 19 and input s, at a fixed frecapacity for s, and after deliuon that a par of time has occillator uses oscillator uses o	lete informati se oscillator, ext channel ir sion channel s inel 9. Autor nixer, 3, to se o and input s at a fixed fre
֡֜֞֝֟֝֟֝֟֝֟֓֓֓֓֓֓֓֓֓֓֓֓֟֟ ֓	over-the-air (hereinafter, "wireless") transmission or frequency in the locality of the subscriber station of Fig. 3 as well as the standard broadcast and cablecast practices that apply on said transmissions and frequencies In a predetermined fashion, controller, 20, controls oscillator, 6, to sequence local oscillator, 6, in the pattern: cable channel 2, cable channel 4, cable channel 7, cable channel 13, wireless channel 5, wireless channel 13, then to repeat said pattern.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to decoder, 30  Controller, 20, has capacity for keeping track of elapsed time, and after determining in a predetermined fashion that a particular predetermined period of time has elapsed from the input of wireless channel 9 to decoder, 30, controller, 20, causes oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 13.	Said detection-complete information causes controller, 20, to cause oscillator, 6, to cause the selection of the next channel in the predetermined television channel selection pattern: wireless channel 9. Automatically oscillator, 6, causes mixer, 3, to select the frequency of channel 9 and input said frequency of interest, at a fixed frequency, to
	over-the-air transmission subscriber si standard bro apply on sai In a pred controls osc oscillator, 6, cable channel 13, channel 9, w said pattern.	Said detecticon controller, 20, the selection of predetermined pattern: wirele oscillator, 6, c frequency of c	Said detection controller, 20, the selection o predetermined pattern: wirele oscillator, 6, c. frequency of c frequency of in decoder, 30
Kelerence		Page 257 line 24 to page 258 line 19.	Page 257 line 24 to page 258 line 19.
Z		Page 257 line 24 page 258 line 19.	Page 257 line 24 page 258 line 19
D	each desired frequency for a specific time interval in accordance with a predetermined pattern. This pattern may be selected in accordance with standard broadcast and cablecast practices known to exist on that transmission line or frequency.		The local oscillator, being thus sequenced, will allow each signal decoder, 30 and 40, to receive a particular frequency at a particular time interval.
Language	each desired frequency for a specific interval in accordance with a predetermined pattern. This pattern is elected in accordance with standard broadcast and cablecast practices kno exist on that transmission line or freq		The local oscillator, being thus seque will allow each signal decoder, 30 ar to receive a particular frequency at a particular time interval.
	each desir interval in predeterm selected ir broadcast exist on th	·	The local of will allow to receive particular t
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	at least one receiver station is one of adapted to detect said at least one control signal and		,
	at least station to detec one con		

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Reference		Page 265 line 27 to Page 266 line 21.	Page 250 lines 13-17.	Page 251 lines 8-11.	Page 263 lines 19-24.
application filed November 3, 1981.			This will define the timing of the composite outputs of the digital detectors, 34, 37, and 38 in FIG. 2A, and 43 in FIG. 2B.		
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			Page 37 lines 26-28.	error correcting bit information of said command and transfers said binary and bit information to controller, 44.  In each decoder, the controller, 39, 44, or 47, receives detected digital information from the relevant detector or detectors, 34, 37, 38, 43, and 46.	
programmed to respond to said instruct signal	Column 19 lines 42-44.  Column 11 lines 41-44  Column 11 lines 50-57  Column 19 lines 14-15	Microcomputer, 205, is preprogramed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programing transmission.	Page 21 lines 20-24.	Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the "Wall Street Week" programming transmission.	
based on a signal location in an information transmission, said method further comprising the step of	Column 4 lines 36-46.	In addition, the pattern of the composition, timing, and location of the signals may vary in such ways that only receiving apparatus that are preinformed regarding the patterns that obtain at any given time will be able to process the signals correctly.	Page 13 lines 19-24.	[The means and methods of this invention] also include techniques whereby the pattern of the composition, timing, and location of embedded signals may vary in such fashions that only receiving apparatus that are preinformed regarding the patterns that obtain at any given time will be able to process the signals correctly.	
		Both the arrangement of signal units in signal words and the locations, timings, and lengths of signal words in individual transmissions or groups of transmissions may vary in fashions that can only be interpreted accurately by apparatus that are preprogramed with the keys to such variations.	Page 14 lines 13-25.	In television audio, [signals] are likely to lie between eight and fifteen kilohertz. In broadcast print and data communications transmissions, the signals may accompany conventional print or data programming in the conventional transmission stream but will include instructions that receiver station apparatus are preprogrammed to process that instruct receiver apparatus to separate the signals from the conventional programming and process them differently. In all cases, signals may convey information in discrete words, transmitted at separate times or in separate locations, that receiver apparatus must assemble in order to receive one complete instruction.	
			Page 60 line 19 to page	SPAM messages are composed of	$\Box$

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By comparing identification signals on the incoming programing with the programing schedule received earlier from local input, 74, and/or from a remote site via network, 98, controller/computer, 73, can determine when and on what channel or channels the
programing.

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network, 98, computer, 73, can determine, in a predetermined fashion, when and on what channel or channels the station of Fig. 6 should transmit the programming of each received program unit.	SPAM signals are generated at original transmission stations or intermediate transmission stations and embedded in television or radio or other programming transmissions	monitor information that identifies what programming is available,	Meter-monitor segments contain meter information and/or monitor information.	A SPAM message is the modality whereby the original transmission station that originates said message controls specific addressed apparatus at subscriber stations.	Said contained messages that are addressed to apparatus such as decoder, 30, PRAM controller, 20, and switch controller, 20A, that exist within the equipment case of a signal processor, 200, are inputted to said apparatus from controller, 12, via controller, 20, rather than via marrix switch, 259	causes the oscillator, 6, then to cause switch, 1, and mixer, 3, to select information of a particular master cable control channel (that may or may not be cable channel 13) from the multi-channel cable system transmission inputted to signal processor, 200, and to input said selected to TV signal decoder, 30;	In the fashions described above, so transmitting said SPAM message causes signal processor, 200, at decoder, 30, (to which said master control channel is inputted),
	Page 84 lines 26-28.	Page 28 lines 26-27.	Page 49 lines 26-27.	Page 59 lines 29-31.	For example, page 531 lines 17-22.	Page 290 lines 26-31.	Page 291 lines 21-24.
				The processor unit, 12, has the capacity to identify instruction signals for controller, 20, and pass them to controller, 20, over control information lines.		Control signals can be passed to the apparatus by means of the programing transmissions input at switch, 1, and mixer, 2.	
				Column 8 lines 62-65.		Column 8 lines 58-60.	
,				a portion of one of said at least one control signal and	·	said instruct signal to be transmitted	

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				to detect the information of said message,
			Page 59 lines 29-31.	A SPAM message is the modality whereby the
				original transmission station that originates
				said message controls specific addressed
				apparatus at subscriber stations.
in said signal location.   Column 12 lines 38-41.	Column 12 lines 38-41.	signal generators, 82, 86, and 90, also	Page 354 lines 21-24.	and signal generators, 82, 86, and 90, also
		well known in the art, that controller/		well known in the art, that computer, 73, can
		computer, 73, can instruct to add signals		cause to embed SPAM information as
		to programing as required.		required.